

**MONTANA-DAKOTA UTILITIES CO.  
MONTANA PUBLIC SERVICE COMMISSION  
DATA REQUEST  
DATED JANUARY 21, 2013  
DOCKET NO. D2012.9.100**

**PSC-118**

**RE: Employee mobilization**

**Witness: Unknown**

**The Commission periodically receives complaints from consumers who witness what they feel is an over-commitment of resources to particular utility projects (i.e., a three- or four-man crew which the complainants believe to be excessive).**

- a. Is the size of a crew for a typical gas line extension job dictated by Company policy and/or union requirements?**
- b. Please explain how the utility decides the size of the crew to send to a job. If there is a written Company policy, federal worker safety regulations, and/or union requirement, please provide it.**

**Response:**

- a. Montana-Dakota's Safe Practice Manual, provided as Attachment A, as well as the Collective Bargaining Agreement (CBA), provided as Attachment B, have provisions that dictate the number of employees required for certain tasks. For line extensions or replacements, it may look like a lot of employees at job sites when multiple companies are involved because of a Joint Trench Project. It is not uncommon to have employees from two to four companies at a work location when joint trenching is involved. Typically, Montana-Dakota (as the gas company) does dig and complete the trench however; the power company (which can be Montana-Dakota also) always has at least three employees on the site. The phone company will have two and the cable company has one or two. Once Montana-Dakota (or another utility or contractor) has the ditch open, the other utilities start putting in their equipment. Therefore, main extensions, replacements or pipeline moves can look like a bee hive at times. The other utilities have to be on-site and start installing their lines first so that Montana-Dakota can maintain separation and position its lines accordingly. This can be a very active site especially in an active roadway tie-in, dictating that the lines are installed and backfilled in progression so that the road can be reopened.

Also, with the size of the equipment and material required today it might take three or four vehicles just to get the material to a job site while several years ago it could be accomplished with one vehicle. For example, steel main extensions require more people to handle the steel installation, welding etc. Some boring operations require a four person crew, again due to logistics.

- b. Please see Response No. 118a.

Response No. PSC-118  
Attachment A

Response No. PSC-118  
Attachment A

**TO ALL EMPLOYEES:**

We are committed to an accident free workplace for all employees and it is up to each and every one of us to share in this responsibility. As we work towards our 'Committed to Zero' goal please remember:

**NO JOB IS SO IMPORTANT, AND NO SERVICE IS SO URGENT, THAT WE CANNOT TAKE THE TIME TO PERFORM OUR WORK...SAFELY!**

Let's all work together to prevent injuries and vehicle accidents. Our families will be glad we did. I'm thanking you in advance for your commitment to staying focused on being safe today and every day.

A handwritten signature in cursive script that reads "Dave Goodin".

Dave Goodin

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**ADDENDUM**

**PART ONE**  
**GENERAL**  
**SECTION 1**  
**GENERAL RULES FOR ALL EMPLOYEES**

**1.1.1 – SAFE PRACTICES MANUAL**

**(a) Duty to Study**

Employees shall be responsible for carefully studying and following the rules contained in this manual. Employees shall be required to familiarize themselves with these rules, on an individual basis, and shall be required to refamiliarize themselves with these regularly. The employee shall be responsible for revisions and being familiar with the manual in its current form.

**(b) Emergency Rules**

It is impracticable to include rules to meet all contingencies. In any emergency not provided for in the rules, employees are required to act under the advice and direction of their supervisors.

**(c) Emergency Action**

Emergencies come at us from any direction and at any time. They can result from:

1. Natural causes like tornadoes, floods, earthquakes, and hurricanes;
2. Fires and explosions;
3. Medical;
4. Chemical spills;
5. Bomb threats, riots, and terrorism

One problem with emergencies is, you can't predict when they will happen.

Each facility throughout our company will have site specific plans for dealing with emergencies. Plans should consist of evacuation procedures (to include disabled), assembly areas, and notification instructions. At all facilities, employees are instructed to evacuate a building if the fire alarm is sounded. No one is expected to use fire suppression equipment. Periodically drills, table-top and/or live, should be conducted to better understand the effectiveness of the procedure.

The Emergency Action Plan, form 20572(11-00), which contains information on emergencies, shall be filled out for each location.

#### **(d) Revisions**

The General Safety Committee will recommend desired changes in the rules. Upon approval, the rules changes will be distributed to each holder of this Safe Practices Manual for insertion into their book.

### **1.1.2 – EMPLOYEES' RESPONSIBILITY**

#### **(a) It is the definite responsibility of employees to so conduct themselves while at work that they assure:**

- Safety for themselves.
- Safety for other employees.
- Protection for the public.
- Protection for Company, public, and private property.
- Drugs, including prescription drugs, that can adversely affect an employee's judgment and

performance shall not be permitted on any job, nor shall any employee be allowed on the job while under their influence.

- The use of cell phones or mobile handheld devices shall in no way conflict with an employee's responsibility to perform work safely.

### **(b) Reporting Unsafe Acts and Conditions**

It is the responsibility of each employee to report to the person in charge all recognized unsafe conditions or unsafe acts on the job if it is not possible to correct them immediately. Use Safety Recommendation Form 20939 only when all other attempts to correct a potentially hazardous situation have been exhausted.

Employees are urged to use Caution cards to report all accidents that did not, but might have, caused injury or property damage.

When an employee is requested to do any work under conditions which he considers to be unsafe, he shall not start work until satisfied that he can proceed safely.

If more than one employee is engaged on the same job, all must understand the procedure to be followed. Under no circumstances shall safety be sacrificed for speed.

It is the responsibility of employees to acquaint themselves with the principles of first aid and CPR made available through the company.

### **(c) Safety Meetings**

Safety meetings for all employees **shall** be held regularly.

**(d) Warnings**

Employees should cultivate the habit of being cautious. Warning signs shall be heeded and persons warned when seen in a dangerous situation.

Employees should be alert to excavation activities by contractors and take the initiative to check with them to determine if the location of our underground gas and/or electric facilities have been marked prior to digging.

When an employee enters a power station or compressor station or yard, he shall immediately make his presence known to the engineer or operator in charge.

Only employees authorized to do so shall enter town border stations, regulator stations and substations.

**(e) Defects and Dangerous Conditions**

It shall be the duty of every employee regardless of the department to promptly report and, when necessary, guard any hazardous condition that could possibly cause injury or property damage or interfere with service. Particular attention is called to fallen wires and open holes or ditches and gas leaks.

When hazardous conditions of lines or apparatus are reported by the public, secure the name of the informant, the location of the trouble, and all other information possible. The informant should be requested to watch the hazard and keep people away from it until the arrival of an employee of the Company. Some employee should be immediately sent to guard it until the arrival of a trouble man.

### **1.1.3 – OTHER SAFEGUARDS**

Barriers, danger signs, cones and ‘men working’ signs shall be used at work areas where there are hazards involving pedestrians or traffic. Employees working in or adjacent to traffic shall wear warning vests made of reflectorized or highly visible, flame-retardant material. Approved flashing warning devices shall be used at night.

### **1.1.4 – PROTECTIVE EQUIPMENT**

Safety equipment shall be used by employees as required. Each employee shall be satisfied that all safety equipment used is in good condition.

#### **(a) Clothing**

Employees shall wear clothing suitable to the weather conditions and to the work being done. When working with and around machinery in which loose clothing, such as shirt tails and neckties could become entangled, the wearing of such clothing and wiping rags hanging from pockets is prohibited.

#### **(b) Headgear**

The Company will furnish approved types of safety headgear. All employees are required to wear this protection at all times when engaged in work presenting hazards of falling objects or head contact with obstacles or energized equipment and conductors and when excavation work is being performed where any of these hazards exists.

**(c) Eye and Face Protection**

Suitable eye protective devices shall be used (and protective screen placed if necessary) by employees whenever the work being performed creates a hazard that will endanger eyesight from:

- Dust and/or flying particles
- Splashing metals and liquids
- Gases and fumes
- Harmful light rays
- Electric arc splatter
- Contact lens should not be worn at any time when working in the above environments.

**(d) Hearing Protection**

Hearing protection shall be used when and where the conditions require it.

**(e) Foot Protection**

Foot protection equipment shall be worn when there is reasonable probability that injury can be prevented by such equipment.

**(f) Respiratory Protection**

Adequate respiratory protection shall be worn when the work atmosphere is suspected or has been tested to show that excessive air borne contaminants exist or there is a lack of oxygen.

**(g) Fall Protection**

Where the potential exists to fall 6 feet or more, appropriate fall protection systems shall be utilized. This would typically consist of guardrails or personal fall protection equipment.

### **1.1.5 – LIFTING AND MOVING MATERIAL**

Proper care should be exercised when lifting, hauling, or pushing to avoid strains which are generally directly due to incorrect positions or lack of manpower.

Avoid insecure positions or those in which the back is twisted. Spread the feet apart in order to have a solid foundation. Squat over the object being lifted, keeping the back as nearly upright as possible.

Use the arm and leg muscles for lifting. If there is a feeling of strain, stop until help is secured.

### **1.1.6 – HOUSEKEEPING**

Good housekeeping is fundamental to continuity of service and essential to successful operation, and shall be maintained in all yards, enclosures, buildings, and motor vehicles.

The responsibility rests with **every** person in the organization to see that equipment, tools, and supplies are stored in an orderly manner.

### **1.1.7 – FIRE PREVENTION**

#### **(a) Rubbish Containers**

Suitable metal containers with self-closing lids shall be provided for oily rags and shall be emptied regularly. Packing supplies, such as excelsior, straw, and paper shall be promptly disposed of or stored in a covered metal container.

#### **(b) Gasoline Storage**

No more than 5 gallons of gasoline shall be stored in portable containers at one location. All containers shall be of the approved type and plainly labeled to

indicate contents. Avoid filling cans so full that expansion in a warm building may cause overflowing.

**(c) Propane Tanks**

Propane tanks larger than 20 pounds must be stored outside of buildings.

Tanks shall not be located next to exits or stairways when stored indoors. Local and state regulations must be adhered to.

**(d) Vegetation Control**

Vegetation must not be permitted to grow up within or around a substation or poleyard, or adjacent to combustible structures.

**(e) Extinguishing Fires**

It is the duty of employees to familiarize themselves with the fire-fighting equipment installed at the location of their work. Training in the safe use of this fire-fighting equipment will help prevent most fires from getting beyond the “First Aid” stage. Types of equipment installed at the different locations are dependent on the classes of fires likely to be encountered and the degree of the hazard, as follows:

**CLASS A** – Fires which result in glowing embers, for example, trash fires and the burning of any solid fuels. This type of fire requires the “quenching” and cooling effect of water in extinguishing. Use a water type extinguisher.

***Exception:***

While “Class A” fires are the type most likely to occur in coal handling areas of power plants; in coal bunkers and in dust collectors or fly ash storage

silos, fires involving coal dust require special techniques in extinguishment to avoid dust explosion. The impact of a high velocity stream of water will create a disturbance which can fill the atmosphere with explosive dust. Use of a fog type water nozzle or foam type of extinguisher is therefore recommended.

All slow combustion or “glowing” fires in carbonaceous materials, especially in confined areas, will yield hydrogen gas when the water is used as a quenching medium. If the area cannot be positively ventilated, use a carbon dioxide or foam type extinguisher.

**CLASS B** – Fires resulting from the burning of liquid fuels, such as gasoline, oil, or kerosene. Here a “blanketing” effect becomes essential in extinguishing. Use dry chemical, carbon dioxide, or foam type extinguishers.

**CLASS C** – Fires which involve energized electrical equipment, such as motors, transformers, and generators while in service. In many cases, Class C fires are in combination with either Class A or B fires. In Class C fires, a “non-conducting” extinguishing agent is essential. Use dry chemical or carbon dioxide type extinguishers. Do not use water, soda-acid or foam extinguishers on electrical fires.

**CLASS D** – fires involving combustible metals, such as magnesium, titanium, zirconium, sodium and potassium. Extinguishers and extinguishing agents for Class D hazards shall be approved for use on the specific combustible-metal hazard.

All portable fire extinguishers shall be maintained in a fully charged and operable condition. Documented inspections are to be performed weekly for construction fire extinguishers and monthly for all other fire extinguishers.

Flammable or combustible liquids shall not be stored in areas used for exits, stairways, or normally used for the safe passage of people. Flammable liquids in containers above 2.5 gallons shall be stored in a Type I or Type II Safety Can. Flammable Storage Cabinets shall be utilized for accumulations of flammable liquids.

### **1.1.8 – TOOLS**

#### **(a) Tools**

Employees shall regularly inspect tools, protective devices, equipment and apparatus. They shall remedy all defects and remove from service items that require major repairs and are unfit for use. Only proper repairs shall be performed.

Supervisors shall require inspections and prohibit the use of tools or equipment judged to be unsafe, regardless of ownership.

Each employee shall use and handle tools properly and see that they are returned to their proper place in good condition.

Flashlights used in hazardous locations shall be approved for the exposure. (Class 1 hazardous location - flammable gases or vapors.)

The use of an axe, draw-knife, hatchet, or chain saw is prohibited when working on a pole or in a tree.

Metallic rules or metal reinforced cloth tapes must never be used near or above energized equipment.

**(b) Chisels, Bars, and Drills**

All chisels, bars, and drills which are held by one person and struck with a hammer by another, shall be held with a holding tool or other suitable device.

Mushroomed heads shall be dressed before further use.

**(c) Axes, Picks, and Sledge Hammers**

An axe shall never be used as a maul or sledge. Handles of axes, picks, and sledges shall be kept smooth and the head securely attached.

**(d) Carrying Tools in Vehicles**

Tools and other equipment shall be placed inside a vehicle such that they will not become dangerous projectiles in case of an accident.

**(e) Grinding Wheels and Wire Brushes**

Safety eyewear shall be used while grinding and buffing. Faceshields are required as additional protection for heavy grinding and buffing.

Workers should not stand directly in front of a grinding wheel as there is always danger of the wheel breaking, especially during start-up.

Work rests shall be provided on all floor and bench-mounted grinders. Such work rests shall be kept at a distance not to exceed 1/8" from the surface of the wheel. Tongue adjustments shall never exceed 1/4" from the wheel periphery.

New grinding wheels shall be unpacked promptly and checked for defects or damage suffered in shipment. Prior to installations make the “ring” test by suspending the wheel and tapping it lightly with a wooden implement such as a wooden screwdriver handle. Sound and undamaged wheels will produce a clear, metallic tone. If defective, there will be no ring. Wheels shall be dry and free of sawdust when the ring test is made.

Additional precautions shall be used in hand grinding operations.

**(f) Machine Guards**

All exposed belts, shafts, chains, gears, etc., shall be enclosed.

**(g) Portable Electric Tools**

When connected to a grounded circuit outlet, portable electric power tools shall be equipped with a ground wire or a three wire cord to maintain an effective ground on the noncurrent carrying parts of the tool. Exceptions to this rule would be double insulated tools and when working on electrical structures carrying energized conductors when power is supplied by a portable and ungrounded generator.

Ground fault circuit interrupters shall be utilized where required (e.g. wet/damp locations and construction sites).

Employees operating electrical equipment shall be thoroughly familiar with the operating instructions

furnished by the manufacturer or company. All defective or unsafe electrical equipment or appliances should be reported as soon as noted. Repairs shall be made by qualified persons.

#### **(h) Powder Activated Tools**

Powder activated tools shall be operated only by personnel who are trained and familiar in the use of this equipment and licensed where required. Use of these tools is prohibited in explosive or flammable atmospheres.

### **1.1.9 – MECHANICAL LIFTING AND HOISTING EQUIPMENT**

Employees whose duties require the use of hoisting equipment should become familiar with the safe loads for chains, ropes, and slings.

When work is to be performed near electric lines, the supervisor or foreman is responsible to make a survey of the area to insure safe work performance. A representative of the power company shall be on hand when it is necessary to cut off power, move a line, or make any other revisions in the field. Equipment shall not be raised where there is a possibility of contacting energized lines. Equipment used near electric lines shall be grounded.

Lifting materials near energized conductors with metal slings is hazardous. Nylon slings are recommended.

**(a) Chain Hoists**

Chain hoists shall not be used for pulling and dead-ending conductors energized at over 300 volts nor shall they be used for pulling other conductors on a pole where the hoists, the lineman, or the wire being pulled can possibly contact a conductor energized at over 300 volts.

**(b) Ropes and Tackle Blocks**

Ropes shall be selected of proper size, strength, and condition to meet the requirements of each job.

Ropes shall be inspected regularly and those found to be damaged or showing excessive wear shall be replaced.

Rope used for lifelines shall be not less than be 3/4" manila or 1/2" nylon and cared for so as to ensure the integrity. Wire rope shall not be allowed for use as a lifeline where the potential for free falls exist, unless equipped with a shock absorbing device.

**(c) Jacks**

Employees shall not subject a jack to a load in excess of its rating.

A jack shall never be relied upon to support any load that must be worked under; instead the load shall be securely blocked.

**(d) Winch Cable**

Employees shall wear gloves, preferably leather faced, when handling wire rope.

When a winch cable is used at an angle through a snatch block or other device, and is under stress, employees shall maintain a safe position in case the cable should break or the snatch block should loosen from its moorings.

**(e) Fork Lifts**

The following safe practices shall be followed by all fork lift operators:

If the operator's vision is obscured by part of the load, an employee should be stationed to direct the operator and to warn away bystanders.

Only trained personnel shall be permitted to operate lift trucks.

Cages or baskets to lift personnel shall be designed and used for that purpose.

**1.1.10 – LADDERS**

Approved nonslip shoes or points shall be provided for all straight ladders.

A minimum of a 3 foot overlap shall be required on the sections of extension ladders up to and including a combined length of 36 ft. Over 36 ft. up to and including 48 ft. will require a 4 foot overlap.

Workers should not ascend higher than the third rung from the top on straight or extension ladders nor higher than the second step from the top on stepladders of over three feet in length.

Ladders must extend 3 feet or more above an access point, roof line or platform.

Use care in placing ladders. If there is danger of the ladder slipping have someone hold it or otherwise securely anchor it. The best angle at which to place a ladder is that in which the horizontal distance from the base to the vertical plane of the support is approximately one-fourth the ladder length between supports. *Example: a 12 foot ladder should be placed so the bottom is 3 feet away from the object against which the top is leaning.*

Always maintain a firm hold and face the ladder when ascending and descending.

Metal ladders or wooden ladders with continuous metal reinforcements shall not be allowed on the job.

Only proper coating shall be applied to wooden and fiberglass ladders. Paint shall not be used which might obscure a defect in ladder strength.

Extension ladders may be used from the beds of pickups and trucks only when the top of the ladder can be supported against a stable object such as a building or pole. A street light bracket is not considered stable. When a ladder is used in this manner, the vehicle on which it is mounted must have the motor off, in gear or park, brakes applied and wheels chocked if on an incline. The ladder must always be lashed to prevent it from falling.

### **1.1.11 – WELDING AND CUTTING EQUIPMENT**

Gas and electric welding and cutting equipment shall be used only by qualified employees.

It shall be the welder's responsibility to regularly inspect the welding and cutting equipment. Leaky valves, frayed hoses or lines, etc. should be reported immediately or repaired without delay. All cylinders shall be securely fastened in a rack.

Welders and helpers shall wear approved goggles or hoods when welding and cutting. During electric welding operations, screens or hoods should be used to protect employee's eyes and particular attention must be given to the public.

Welding done in any closed vessel or confined space shall be undertaken only after thorough ventilation and purging with such ventilation and purging to be continued during the progress of the work. Welders and assistants shall be alert to the dangers of letting their clothing become saturated with acetylene or oxygen and shall discontinue procedures immediately if there is any suspicion that such condition is occurring.

Welders and helpers shall protect themselves from ultra violet ray exposure through use of proper eye protection and the use of clothing which will resist such radiation.

Welding or cutting of galvanized metal or any welding or cutting operations involving zinc, lead, tin, mercury, copper, or other metals that will volatilize at relatively low temperatures shall be conducted only under adequate ventilation conditions which drives the fumes away from the workers.

Whenever arc welding is to be executed from work platforms or boatswain chairs suspended by steel cables, or welding is to take place in the immediate area of steel cable suspending loads, such cables in the area of the work and subject to inadvertent contact with welding electrodes or electrode handles shall be insulated to prevent any possibility of a welding arc contact with the loaded cable. Such insulation may be with electric line insulating hose no longer suited for high voltage line work and appropriately marked or with split industrial hose of satisfactory low voltage insulating value.

When conditions warrant welding shields shall be used to protect other workers and the public from the hazards of arc flash. When arc welding is done over water surfaces in tanks, ditches, or excavations, welders and employees in the area shall be protected against the reflection of the arc from the liquid surface. Water reflection of ultra violet rays is extremely efficient and arc burns from this cause are common.

### **1.1.12 – COMPRESSED GASES**

Cylinders of compressed gases (hydrogen, oxygen, acetylene, carbon dioxide, nitrogen, etc.) shall be stored in a reasonably cool place, protected from the sun and other sources of heat. Use due caution handling these cylinders and they shall not be moved unless the protective cap is installed over the outlet valve except when gas cylinders are safely attached to welding carts, racks, or trucks.

### 1.1.13 – COMPRESSED AIR

Compressed air, when improperly used, is extremely dangerous. It is therefore prohibited to use compressed air for blowing dust or dirt from any part of the body or from clothing that is being worn. Horseplay involving compressed air will not be tolerated.

### 1.1.14 – EXPLOSIVES

Employees who handle explosives or detonators shall be trained and experienced.

### 1.1.15 – HAZARD COMMUNICATION

1. Hazard Communication is your right-to-know the facts when working with potentially hazardous substances. Generally speaking these are the chemicals we use or are exposed to while at work.
2. Always read the label on the container so that you know how to properly use the product, recommended safety precautions and safety equipment. Refer to the Material Safety Data Sheet (MSDS) for additional information.
3. Information contained in a MSDS.
  - **Product Information:** This section gives the product name, manufacturer, emergency phone numbers, product description, and chemical family.
  - **Ingredients/Summary of Hazards:** This section tells you if the product is hazardous or not, whether it contains carcinogenic materials (cancer causing), it's formulation unless it is a trade secret, ingredients, and exposure guidelines.

- **Health Information and Protection:** This section contains potential health effects, means of exposure through eye contact, skin contact, inhalation, and ingestion. First aid measures for eye contact, skin contact, inhalation and ingestion. Work place exposure controls are listed, special precautions and personal protection. If ventilation is required it also is listed.
- **Fire and Explosion Hazards:** This section contains the flash point of the product, the minimum temperature where you have to start worrying about flammable or explosive vapors. Flammable limits upper and lower, concentrations of the substance in the form of a gas or vapor that is needed for it to ignite. Fire fighting procedures, what to use and not to use, what special equipment is needed if any. Hazardous combustion products, what is produced if the product burns.
- **Spill Control Measures:** What to do if there is a spill, how to contain it, what materials to absorb it and disposal of the materials.
- **Handling and Storage:** Information on proper handling and storage of the product.
- **Typical Physical and Chemical Properties:** This section describes the odor and appearance of the product, it's vapor pressure, specific gravity, percent volatile, water content, boiling point, vapor density, solubility in water, halogen content, and pH.

- **Reactivity Data:** Is this product stable or unstable and what incompatible materials and conditions to avoid.
- **Regulator Information:** DOT information, is the product regulated or not, DOT proper shipping name, DOT hazard class, DOT identification number. The flash point and pH are also given. If this products falls under any other regulations they are given in this section and what to do.
- **Notes:** This section contains the hazard rating systems for health, flammability, reactivity, and protections.

**KEY:** 4 = SEVERE  
3 = SERIOUS  
2 = MODERATE  
1 = SLIGHT  
0 = MINIMAL

4. If a product is removed from a container and placed into an unlabeled container the container must be labeled. The MSDS sheet has the necessary information to complete the HMIS label to put on the container.
5. Follow proper procedures for packaging and storing products in vehicles or when transporting.

### **1.1.16 – USE OF BOATS**

Whenever our work necessitates the use of a boat, all maritime safety regulations shall be adhered to. Under

hazardous conditions where it would be impossible to survive for any length of time should the boat capsize, two boats shall be used...one to shuttle men and material to and from work location, and one boat shall be kept on standby, completely equipped with operator and at least one other man, with motor running whenever the shuttle boat is in operation.

### **1.1.17 – LOCK OUT / TAG OUT**

The OSHA LO/TO standard covers the servicing and maintenance of machines and equipment in which the unexpected energization or start up of the machines or equipment, or release of stored energy could cause injury to employees. It does not apply: if employees are not exposed to the unexpected release of hazardous energy while performing maintenance; while servicing cord and plug connected equipment where the employee has unplugged and maintains exclusive control of the cord; while work on electric transmission and distribution is within sight and under control of the disconnect or control mechanism; and during hot tap operations on natural gas lines. Clearance procedures as established for electric transmission and distribution are considered an effective alternative and a part of the LO/TO program.

On company premises the tag is intended to be as effective as a lock. Unauthorized tampering or removal will not be tolerated. Exposure to the public requires locks and locking devices. Our company uses two specific types of tags. One is designed for use on

electrical facilities i.e. transmission and distribution systems. The other can be used for all remaining applications. A tag will be used in all situations where control of hazardous energy is necessary. A lock will be used in addition to the tag when there exists a suitable means of attachment. Lockout or tagout devices shall be removed by the employee who applied the device, if not available then local management will be involved in the safe removal and return to service procedure. The device used to affix tags shall be able to with stand a 50 lb. pull.

To determine when LO/TO applies follow the flow chart to determine if the work being done is considered to be part of normal operations or maintenance. If the work is maintenance then LO/TO applies.

### **1.1.18 – INSTALLING CADWELD MOLDS**

Molten metal used in cadwelding operations can be blown out of the mold, into an employee's face and eyes. When making a cadweld connection, employees must be certain that the cable and the equipment is perfectly dry and anyone doing the cadweld must wear eye protection, leather gloves and long sleeves or jacket before the powder mixture is ignited.

### **1.1.19 – POWER HAMMERS**

There are many hazards encountered when using a power hammer such as hazards to an employee's feet, eyes, head and a noise hazard which can affect an

employee's hearing. The following protective equipment must be worn when using a power hammer and in the vicinity of a hammer being used: foot protection such as safety shoes or attachable foot guards, eye protection such as goggles or safety glasses, hard hat for head protection, and approved hearing protection. If work is done near vehicular traffic, an approved warning vest must also be worn.

### **1.1.20 – ABRASIVE BLASTING**

Employees engaged in open abrasive blasting must wear respirators designed and approved to control the concentrations of toxic dust. Operators shall be equipped with eye and face protection, heavy canvas or leather gloves and aprons, or equivalent protection to protect them from the impact of abrasives.

Blasting cabinets and enclosures shall be properly maintained.

### **1.1.21 – LOAD BINDERS**

The following rules shall apply when using load binders:

- (a) A cheater bar should be used to release the binder
- (b) When possible, the binder should be set on the side of the load rather than on top of the load.

### **1.1.22 – TWO-WAY COMMUNICATION EQUIPMENT**

Employees shall at no time be in bodily contact with any mobile or portable two-way radio antenna while the mobile or portable two-way radio it serves is being used.

### **1.1.23 – CONFINED SPACES**

Identified or suspected confined spaces require special work procedures, additional precautions must be taken. Prior to entry potential hazards shall be discussed with the person in charge of the work.

OSHA defines a confined space as:

1. Is large enough and so configured that an employee can bodily enter and perform work and;
2. Has limited or restricted means for entry or exit; and
3. Is not designed for continuous employee occupancy.

Hazards associated with confined spaces that need to be tested for are:

1. Oxygen Level, which cannot be less than 19.5 % or greater than 22.0%.
2. Flammability. Ie. the presence of natural gas etc.
3. Toxicity. Presence of CO, H<sub>2</sub>S etc.

Reading to be taken at the top, middle and bottom of space.

Other hazards to be checked are:

1. Energy sources (LOTO)
2. Mechanical Hazards (LOTO)
3. Fall Protection
4. Physical (Light, Noise, Falling Objects)
5. Configuration (Entry, Exit)

Form 21375(8-88)(rev. 5/94) shall be completed before entry into a suspected enclosed/confined space.

Conditions in a confined space can change without warning. Many confined space hazards cannot be

detected by human senses. Our first line of defense in dealing with a confined space is air testing and continuous monitoring while working in the confined space. Ventilation then becomes a vital component in maintaining a breathable atmosphere. Spaces to watch for are: tanks, bins, silos, hoppers, vaults, pits, trenches, manholes, and crawl spaces. Many of the spaces we enter are not our property. If we are unable to eliminate or control the hazard, we can not enter.

***Permit Space:*** a confined space that has one or more of the following:

Contains or has the potential to contain a hazardous atmosphere. This could mean that the oxygen content of the space is inadequate, or that the toxic, or explosive gases, fumes or vapors are present

Contains a material that has the potential for engulfing an entrant. For example, a silo filled with grain is an engulfment hazard.

Has an internal configuration such that an entrant could be trapped, or asphyxiated by inwardly converging walls or by a floor, which slopes downward and tapers to a smaller cross-section.

Contains any other recognized serious safety, or health hazard, such as turning exposed blades on equipment or a hole where a worker could drop through to another level.

***Note:*** *A permit space has one or more features that require the worker to take special precautions. These spaces are considered immediate health and safety risk.*

### **1.1.24 – FIRST AID KITS**

First Aid Kits are required to be maintained with appropriate contents and located in all offices and warehouses. Documented inspections will be performed monthly. First Aid Kits in construction vehicles will be inspected weekly and also documented.

### **1.1.25 – BLOOD-BORNE PATHOGENS**

The Blood-Borne Pathogens standard was designed to provide a set of work practices that will help protect you against infections caused by blood borne pathogens. Blood-Borne Pathogens are microorganisms present in human blood and body fluids that can cause disease in humans, including but not limited to Hepatitis B virus, Hepatitis C virus, and HIV.

Before rendering assistance to an injured person that is bleeding or secreting body fluids put on the necessary protective equipment to protect yourself. All first aid kits shall contain:

1. Latex gloves
2. Face shield for mouth to mouth resuscitation

Each building where employees report to work will have:

1. A “precaution kit” for cleaning and disinfecting potentially infectious spilled bodily fluids.

Follow-up reporting regarding an exposure is of utmost importance. Notify the foreman or supervisor in charge **immediately** following any significant exposure. Verbal communication shall be made with the Safety

Department and the following form completed before the end of the work shift.

1. Exposure Incident Report # 20087(3-93)

After the exposure incident an evaluation will be made to determine necessary medical follow-up which will be kept confidential. The source individuals blood may be tested if legal and feasible. The exposed employees blood may be collected and tested after consent is obtained to establish as baseline. Antibody testing at the time of exposure along with reasonable retesting is considered sound medical practice. If an employee declines blood testing and or/ Hepatitis B vaccinations the following form shall be completed and forwarded to the Safety Department.

1. Exposure Follow-up Declination #20090(3-93)

**SECTION 2  
GENERAL RULES FOR  
SUPERVISORS AND FOREMEN**

**1.2.1 – RESPONSIBILITY OF SUPERVISORS  
AND FOREMEN**

The person in charge of any job will be responsible for seeing that everyone on the job does their work in a safe manner with proper equipment and housekeeping. The foreman in charge of the work shall supervise the work as required to assure safe and efficient progress if the work is hazardous or requires competent supervision. The foreman must make certain that the employees:

- Know the hazards which may be encountered on every job on which they work.
- Have and use the protective equipment suitable for the job.
- Follow safe practices while doing their work.

The foreman shall outline safe methods and the proper way of carrying on the work and shall see that the instructions are obeyed and the rules herein enforced. The foreman shall be held responsible and accountable for accidents unless the facts indicate that the accident occurred as a result of conditions entirely beyond control.

Every accident shall be thoroughly investigated. The foreman or person in charge of the job where the accident occurs is responsible for obtaining all details of the accident and making an immediate complete report on forms provided for this purpose.

The Department Head **and** the Safety Director shall be given verbal notification of all serious accidents as promptly as possible.

Reports of accident shall be made to the General Office according to the provisions as outlined in the Insurance Manual and any supplements that may be issued.

## **SECTION 3**

### **1.3.1 – ACCIDENT PREVENTION IN THE OFFICE**

Although many jobs are of the so-called “non-hazardous” type, accidents frequently occur to employees in such

positions. There is danger in almost any job unless the person doing the job is always careful and alert.

- (a) Chairs, wastebaskets and other articles must not be left in aisles.
- (b) Desk drawers, cabinet doors, slides and files must not be left open. Only one file drawer should be opened at a time. Avoid overloading file drawers.
- (c) Ladders of proper type or other safe supports must be used to reach material on high shelves. Do not stand on chairs or boxes.
- (d) Handrails should be used when ascending or descending stairs.
- (e) All paper cutters must have an approved guard and the guard must be kept in place at all times.
- (f) Wire or cords must not be on the floor where they can cause falls or be damaged.

**PART TWO**  
**CARE AND OPERATION OF  
MOTOR VEHICLES AND  
CONSTRUCTION EQUIPMENT**

**SECTION 1**  
**VEHICLE AND EQUIPMENT OPERATOR**

**2.1.1 – RESPONSIBILITY**

An employee shall be required to use the highest practicable degree of care at all times in the operation of a vehicle. Driver shall always practice DEFENSIVE DRIVING, which means there should be no driving errors committed, YIELD RIGHT-OF-WAY in the interest of courtesy and safety, and do everything possible to prevent accidents due to weather, road conditions, or actions of pedestrians and other drivers.

Drivers shall observe, obey, and will be held responsible for the enforcement of all rules/laws (company and public).

Drivers shall give their full attention to driving. They shall not engage in any activity that will unduly divert their attention while the vehicle is in motion.

Drivers shall keep vehicles and equipment clean and orderly and report any unsafe vehicle conditions.

Drivers of vehicles with exposed equipment above the cab shall remain aware of that fact and take routes that provide the necessary clearance.

### **2.1.2 – QUALIFICATIONS**

All employees required to operate Company vehicles and construction equipment or private vehicles on Company business shall be qualified.

To be qualified an employee shall:

- (a) Exhibit evidence of a valid state driver's license.
- (b) Complete an application for the privilege to operate a Company vehicle.
- (c) Satisfactorily complete the training as required by the company.

### **2.1.3 – PHYSICAL CONDITION**

Employees shall not operate vehicles or equipment when their physical condition will impair their judgment and ability, or when under the influence or after effects of liquor and/or other non-prescribed drugs.

Employees should check with their physician to determine what effects prescribed drugs will have on their ability to operate vehicles and equipment.

## **SECTION 2 VEHICLE AND CONSTRUCTION EQUIPMENT OPERATING RULES**

### **2.2.1 – CHECK ON EQUIPMENT**

Periodic vehicle and equipment inspections shall be made in accordance with the recommendations of the manufacturer to insure safe operating conditions. No vehicle shall be operated without a registration and

insurance card, properly focused headlights, taillights, turn signals, brakes, windshield wipers, horn and rear view mirrors.

### **2.2.2 – BEFORE STARTING**

Be sure ALL windows are free of frost, snow, ice, or other material which can obstruct the view. Look completely around the vehicle before getting into the driver's seat. Children may be playing on or around the vehicle, or an obstacle (bicycle, wagon, doll buggy, another vehicle, etc.) may have been left in the way since the vehicle was parked.

Employees must establish the practice of always using caution when getting in and out of a vehicle. Do not open the door until traffic is clear.

Seat belts shall be worn when the vehicle is in motion.

Never run any internal combustion engine within an enclosure, without proper ventilation.

Employees shall report vehicles or equipment which they consider unsafe for use.

### **2.2.3 – BRAKE TEST**

Drivers must immediately test the effectiveness of the foot and emergency brakes before operating a vehicle.

### **2.2.4 – PARKING**

Whenever a vehicle is to be parked, a parking space shall be selected which will require a minimum need for backing when the vehicle is to resume travel. The

vehicle shall be legally parked, whenever possible, and appropriate vehicle and pedestrian warning signs, lights and barricades placed.

When parking on a grade, turn the wheels toward the curb on a downgrade and away from the curb on an upgrade; where there is no curb, use wheel chocks to comparably secure the vehicle.

Do not park on the traveled part of the road unless absolutely necessary.

### **2.2.5 – BACKING**

When backing in congested or limited view areas and there is another employee available, it is mandatory that the other employee's assistance be obtained to act as a guide and flagman while the vehicle is being backed. When the view is obstructed and such assistance is not available, the driver must thoroughly inspect the area into which the vehicle is to be backed to determine the clearance from objects and the presence of nearby pedestrians. **A DRIVER SHOULD ALWAYS SOUND THE VEHICLE HORN BEFORE BACKING, AND SHALL ALWAYS BACK SLOWLY AND WITH EXTREME CAUTION.**

A vehicle shall never be backed out of a dead end street if it is possible to do otherwise.

### **2.2.6 – WATCH FOR CHILDREN**

Whenever children are seen, adjust your speed so the vehicle can be stopped abruptly.

### **2.2.7 – LEAVING THE VEHICLE**

Before leaving a vehicle unattended (out of driver view) in public, see that the engine is shut off, THE IGNITION KEY IS REMOVED, and the transmission is in low or reverse gear (park position if automatic transmission). BEFORE LEAVING ANY VEHICLE AT ANY TIME, ALWAYS SET THE EMERGENCY BRAKE.

### **2.2.8 – SIGNALING**

Before slowing down, turning or stopping in traffic, you must let your intentions be known to other drivers. All signals must be given, if possible, at least 100 feet before making the actual move. Continue to signal until you are ready to make the actual turn. Always be certain your SIGNALS ARE DISCONTINUED after completing a maneuver.

### **2.2.9 – STREETS AND INTERSECTIONS**

When entering a street from an alley/driveway or when entering an alley/driveway from a street, drivers should turn right whenever possible.

Drivers shall approach all intersections with extreme caution and must check to see that the way is clear before entering an intersection. **REMEMBER** that a green light gives permission to proceed only when safe to do so.

### **2.2.10 – SPEED LIMITATIONS**

Speed limitations shall be as posted and/or established by state or local law, and adjusted as required for existing

conditions. Maximum speeds shall be further governed by vehicle placards and the operators manual furnished by the vehicle manufacturer.

### **2.2.11 – FULL STOPS AND SPECIAL CAUTIONS**

When entering into or emerging from garages, yards, alleys, or other places where the view is obstructed, stop completely, honk horn and then proceed with caution.

No attempt shall be made to pull around and pass from behind a vehicle stopped at stop signs. No crawling stops shall be allowed even though traffic is clear.

The driver of a vehicle upon meeting or overtaking any school bus with flashing red lights must stop the vehicle before reaching the school bus and shall not proceed until such school bus resumes motion and the children are clear of the highway, or the driver signals to proceed, or the red lights are no longer flashing.

Slow down and use caution when crossing railroad tracks.

### **2.2.12 – PASSENGERS**

Except in emergency cases, vehicles shall be used to carry passengers only for business reasons.

When riding in a truck, passengers must be seated, preferably inside the truck cab. No one shall ride with their hands or feet hanging over the rear or side of the truck bed, or box.

Employees shall not ride any equipment unless there is a space specifically provided and equipped for a passenger.

### **2.2.13 – LOADING AND HAULING MATERIAL**

To prevent materials from shifting or falling from vehicles, the following procedures shall be observed in loading and hauling:

- (a) All tools and auxiliary equipment shall be carried in compartments or on racks provided for such purpose. All materials shall be stowed securely on the vehicle.
- (b) All loads must be carefully inspected before the vehicle is started. On longer hauls, frequent inspections shall be made to see that:
  - (1) The load has remained securely lashed.
  - (2) No item has shifted position so as to protrude into other vehicular or pedestrian traffic lanes.
- (c) Pipe shall be securely fastened prior to transportation. A synthetic load binder shall be installed on the front and/or middle support for use as an additional tie. Pipe or other equipment shall not be carried on the driver's side of any vehicle unless such pipe or equipment will allow the driver's door to be opened.
- (d) Materials which project behind the body of the vehicle/trailer, carry a red flag during the day and, at night a red light and suitable reflectors. When turning corners, extra care must be exercised so that the projecting portion of the load will not come in contact with persons or property. If necessary, an assistant shall stand guard until the corner has been turned. Whenever possible materials shall be loaded so they

do not extend beyond the front of the vehicle. If this is necessary, it shall also carry a red flag. Local, state and federal laws shall be followed.

- (e) Employees shall not attempt to steady or otherwise hold material from shifting while in transit.

### **2.2.14 – TRAILERS**

Trailers must be securely coupled to the truck or vehicle and also joined by safety chains or cables. Trailers with GVW above 3000 lbs. shall be equipped with and utilize dual brake systems.

Trailers shall be adequately equipped with lights and reflectors as required by local, state, and federal regulations.

### **2.2.15 – BOOM TRUCKS**

During the operation of a boom/basket truck, the following rules are to be followed:

- (a) When in use near and adjacent to energized substations, buses, lines, or equipment, and high voltage contact is possible, the truck shall be grounded. Workers, however, shall not rely on a grounded truck being completely shockproof, and shall visually check to determine that the truck is not energized before making contact with it or alighting from it.
- (b) Available footing for the truck wheels and outriggers shall be examined carefully and extra caution exercised if there is snow, ice, mud, soft ground, or other unusual conditions.

- (c) Platforms for outrigger shoes shall be used.
- (d) Before lowering outriggers or jacks, the operator shall be certain there is no person or obstacle in the path of descent. When work is completed, retract outriggers or jacks.
- (e) The operator shall note the location of all obstructions, so that the basket or boom will not contact such obstructions when it is raised, lowered, or rotated. When the boom must be maneuvered over a street or highway, necessary precautions shall be taken. A flagman shall be used if necessary.
- (f) Booms must be retracted and put in the stow when the truck is in transit between jobs.
- (g) Employees operating ground controls shall be on the vehicle or use high voltage rubber gloves and other protective equipment as necessary.
- (h) Ground employees shall stay away from the work area of the boom or basket unless their assignments require their presence.

### **2.2.16 – SLOW-MOVING VEHICLE EMBLEMS**

All vehicles expected to have a maximum travel speed of 25 miles per hour or less, that are driven on streets or highways, must have a slow moving vehicle emblem displayed on the rear at a height that is plainly visible to a driver approaching it. If the vehicle or equipment displaying a slow moving vehicle emblem is being hauled

where speed will exceed 25 miles per hour, the slow moving emblem shall be covered.

### **2.2.17 – USE OF CUSTOMER’S DRIVEWAYS**

Parking in a customer's driveway is discouraged and should be limited to situations where it is impractical or unsafe to park in the street. A vehicle should not be backed out of a driveway or dead end street if it is possible to do otherwise.

### **2.2.18 – ACCIDENTS**

No matter how slight, **report any accident IMMEDIATELY.**

### **2.2.19 – HORIZONTAL DIRECTIONAL DRILLING (HDD) MACHINES**

Prior to operation, familiarize yourself with the manufacturer's operators manual and 'safety messages' located on the machine. At a minimum, hard hat, safety glasses or goggles, and electrically insulated boots (14kv) are required to be worn by the operator. The operator must remain seated with feet on the foot platform during operation. The boring tool locator must wear a hard hat and electrically insulated boots.

Additionally:

- Anyone assisting the operator from the ground during operation must wear Class 2 electrically insulated gloves,
- Never stand on the ground and touch metal parts on the boring machine when operating,

- Never step onto or off of the operator station during an electrical strike,
- Always test both voltage and current strike alert systems prior to start.

Before the drilling process begins, all potential conflicting utilities and underground structures will be located and, if at all possible, physically exposed. During drilling and especially pullback (back reaming) each utility crossing will be physically observed so that no damage occurs. If the governing body will not permit physically exposing utilities to be crossed all available information about depth of each utility should be obtained to assist drilling guidance.

## **SECTION 3 EMERGENCY EQUIPMENT**

### **2.3.1 – REFLECTORS**

All Company-owned vehicles that are capable of towing trailers shall be equipped with a set of emergency reflectors and they shall be used in accordance with local, state, and federal regulations.

### **2.3.2 – FIRST AID KITS (*See 1.1.24*)**

### **2.3.3 – FIRE EXTINGUISHER**

Company-owned motor vehicles equipped with fire extinguishers shall be inspected at regular intervals and mounted in accordance with the manufacturer's instructions.

### **2.3.4 – USE OF TOW ROPES**

The use of nylon or other such material for towing is allowed if there are no chains, hooks or other attachments fastened to the end of the rope and suitable tow hooks or other means are available to which the tow rope can be fastened without damage to the rope.

## **PART THREE**

### **GAS OPERATING RULES**

#### **SECTION 1**

#### **GENERAL**

##### **3.1.1 – REPAIRS**

All employees shall give immediate attention to all unsafe conditions as soon as they are discovered. Temporary repairs shall be made only in case of emergency and shall be followed by permanent repairs as soon as practical. Employee shall make a written report of temporary repairs. (Refer to the Gas Emergency Response Flow Chart on A-48)

##### **3.1.2 – SMOKING**

Smoking is prohibited near mains, services, manholes, vaults, and at any location where an explosive mixture may exist.

##### **3.1.3 – FLAME CUTTING**

The welder shall make provisions to safely remove gas from the work area or to burn the gas during the flame cutting or welding operation. The gas line should be blanked off, if possible, the gas pressure relieved and the area checked for explosive mixtures. Workers should not stand in front of or near the open end of any line that is being cut into or welded. (See 29 CFR-1910.252/1926 Subpart J)

##### **3.1.4 – LINES AND VALVES**

The procedure and all safety precautions should be

planned by the supervisor before a repair or replacement job is started. If the work involves an interruption of service, all affected customers must be notified and each gas service shut off. Upon completion of repairs, service shall be reestablished in accordance with Company rules. Closed distribution valves shall be tagged as required. The pressure of any line shall be relieved before the line is parted.

When working on plug valves, employees shall stand to one side as the lubricating plug might be blown off. If normal lubrication does not free the valve, further maintenance must be done by a qualified employee. Valves shall be clearly inspected and defective valves shall be reported to the supervisor.

### **3.1.5 – FROZEN GAS LINES**

Alcohol injection is the preferred method to thaw out frozen lines. Fire shall be used as a last resort and then only under close supervision. Wrapping a line with burlap and pouring hot water over it or spraying steam in it will usually be effective. If the line must be cut, the pressure shall first be relieved. Employees shall not stand in front of or near the end of a line from which gas or foreign material is blowing. Check any valves that have been frozen for defects.

### **3.1.6 – METERING AND REGULATING STATIONS**

Installations shall be locked to prevent tampering with equipment. Employees shall not make any changes to any valve, meter or regulator setting except on order from their supervisor or foreman.

When making repairs to meters or regulators in a confined space, the atmosphere shall be tested and

properly ventilated if necessary. Where hazardous escape of gas cannot be prevented, another employee shall be assigned to assist from outside the area.

Some stations have delicate electronic equipment for communications, telemetering, or supervisory control. Employees working in stations shall take care to avoid damage to any instruments or control lines.

Each metering or regulating station shall have prominently posted, DOT approved, warning signs. Employees should regularly check to see that the signs are in place and in good condition. Employees should make it a habit to inspect the station and report any unusual situation or defective equipment to their supervisor.

### **3.1.7 – STORAGE AND HANDLING OF PIPE, LARGE METERS, AND HEAVY EQUIPMENT**

Mechanical equipment shall be used if possible in handling and moving pipe, large meters, and other heavy equipment.

Pipe shall be stored as outlined in Section 2 of the Gas Distribution Standards.

## **SECTION 2 MAINS AND SERVICES**

### **3.2.1 – GASEOUS ATMOSPHERES**

A three or four gas monitor shall be used to test the atmosphere prior to working in known or suspected confined spaces. Where possible, manholes or vaults shall be ventilated before entering. Where it is not

possible to ventilate, every precaution must be taken to prevent sparks and approved breathing apparatus, lifelines and other protective devices shall be utilized. When working on mains or services where there is an escape of gas, an employee shall be assigned to assist and keep all traffic, fire, open flame and lights away from the area.

### **3.2.2 – REPLACEMENT OR TIE-IN**

Air shall be purged when a replacement or tie-in is completed. Gas shall be fed into the replacement section cautiously. Suitable tapping machines shall be used in connecting new or repaired mains or services containing gas under pressure. (See Section 3 of the Gas Distribution Standards.)

Approved bags and stoppers may be used for making low pressure tie-ins. Nearby pilots, in both directions, should be checked after completing low pressure stopping procedures. Before a section of steel pipe is cut out and replaced, bonding clamps shall be installed across the section of pipe to be removed. This will prevent sparks from static charges or electric current. Plastic pipe shall be grounded.

All open pipe shall be capped as soon as possible.

### **3.2.3 – TAPPING LINES**

Before starting any job requiring the tapping of gas lines under pressure, employee shall check and procure all the necessary safety equipment, such as fire extinguishers and fire resistant coveralls, and determine that they are suitable for use.

## **SECTION 3**

### **CATHODIC PROTECTION**

#### **3.3.1 – GENERAL**

The rectifier switch shall be turned to the “off” position before working on the unit or before changing any tap bars on the transformer terminals.

No fuses of other dimensions or capacities than the original shall be installed without written permission from the Gas Department.

Installation and maintenance of rectifiers shall be in accordance with instructions from the Gas Department.



# **PART FOUR**

## **ELECTRIC OPERATING RULES**

### **SECTION 1**

#### **RULES FOR POWER PLANT EMPLOYEES**

##### **4.1.1 – GENERAL**

Power plant employees shall familiarize themselves with all parts of the Safe Practices Manual, paying particular attention to instructions having to do with dispatcher clearances, safety procedures in substations, the rules governing the use of switching and protective equipment and tags.

Scaffolds shall be capable of supporting the total load to be imposed upon them and all decking securely fastened. Precaution shall be used to prevent materials, tools, or supplies from falling or blowing from these structures.

Deposits of oil or grease from leaking bearings or lubricant reservoirs shall be kept cleaned up if the leak cannot be immediately repaired. In view of the fire hazard, this rule is particularly applicable to oil and oil vapor leaks along turbine, generator or exciter shafts and bearings. Oil leaks posing a slipping hazard shall also be strictly controlled.

Employees shall wear shirt sleeves rolled down and buttoned while working in burn hazard areas of power plants.

#### **4.1.2 – BOILERS AND AUXILIARIES**

Before any work is started in an area with limited access, appropriate signs will be placed at the entrances and exits to prevent entrapment (i.e. boilers, pressure vessels, tanks, silos). All valves, switches, and other components of equipment which could affect the safety of the personnel inside shall be rendered inoperable using plant procedure.

No employee shall enter a boiler drum, condenser (steam or water side), condensate storage tank, lube oil storage tank, or other vessel without an attendant.

Boiler drums shall not be entered until all manholes in all drums have been opened. Manhole plates shall not be reinstalled in any manhole in any drum until all personnel have left all boiler drums.

Special emphasis is placed on this rule in the case of boilers where pressure parts of the boiler shall not be entered without first ascertaining that all valves are shut with special attention given to feedwater and blowdown valves. Where it is necessary for blowdown valves to be open on the equipment being maintained, such as with boiler washing, the blowdown valves of all other boilers in the plant manifolded to the same blowdown line or blowdown tank shall be closed and tagged and this condition remain in effect as long as personnel remain in the idle unit.

Gage glasses shall not be replaced without first shutting off valves on the top and bottom of the gage

glass or water column and the gage glass or water column blowdown valve must be opened and left open during the replacement procedure. The gage glass shall not be returned to operation until all personnel are clear of the hazard area in the event of breakage during warmup.

No work shall be done on or near safety valves while a boiler is in operation or under pressure except to make the necessary adjustments and then only after the installation of a calibrated test gage visible to the employees making the adjustment and also after establishment of satisfactory communications with personnel at the boiler control.

Safety valve gags must be used whenever work being performed will allow their use. The boiler steam generation shall be no more than the capacity of the in-service safety valves when a safety valve is gagged. Gags must be removed from safety valves immediately after the work is completed.

Extreme caution shall be used in entering boiler settings at points where fly ash accumulations are present. Such deposits may be cold on the surface but will retain dangerously high temperatures for several days after a boiler is taken out of service. Fly ash accumulation shall not be cooled with water in view of the danger of water gas explosion.

Extreme caution will be exercised when an employee enters a boiler, mist eliminator, or wet duct due to the hazards of ash buildup overhead. When possible such ash buildup shall be removed before an employee enters

such hazardous areas. Safety precautions such as overhead scaffolding and nets shall be used where such ash buildup cannot be removed.

Workers in dusty boiler settings, ash, or coal bunkers shall wear goggles and respirators.

Following extreme exposure to fly ash or lime, employees shall shower to prevent skin irritation from the ash.

Work on or in coal mills, exhaust fans, regenerative air heaters, stokers, and boiler fans shall only proceed after proper disconnection and tagging of driving mechanisms.

No one shall enter the ash gate of any furnace or ash hopper unless the gate is securely blocked. A blocking must be applied to the gate, not to any hydraulic operating handle or cable reel suspension device.

When working in the area of dampers operated by control devices, the operating air supply or electric power shall be shut off, control device placed in the hand position, and securely locked.

Employees working from high level staging or platforms shall wear safety harness or belt and lifelines securely attached to provide minimum fall compatible with the freedom of movement required by the work in progress.

When work within a boiler setting will be aided by or requires the use of the forced or induced draft fans on the units, personnel within the setting shall leave while the fan is started and not return until the proper and appropriate draft conditions have been established.

Oil, gas, or pulverized fuel fired boilers shall be ignited only with a specific ignition source or torch, never depending upon ignition from an adjacent burner or hot refractory. Where gas, oil, or pulverized fuel fired boilers are equipped with purge timers, safety cock systems, and similar safety devices, such systems shall not be by-passed and must be maintained in operable condition at all times.

Goggles or face shields with dark lens shall be used for all open furnace door work or observation.

Furnace doors shall not be opened unless the fireman or boiler operator is advised.

Extreme caution shall be exercised in opening furnace doors during soot blower operation.

#### **4.1.3 – TURBINES**

No one shall enter the exhaust balloon of a turbine equipped with a turning gear unless the turning gear is disengaged and the motor shut off, with these operating devices properly tagged. In the event the work within the exhaust balloon requires turning the turbine shaft, a competent operator shall remain in continuous communication with employees within the turbine case, assuming full responsibility for the safe conduct of the operation.

Routine opening of generator breaker shall only take place after careful examination has assured the operators that load and amperage readings are at or below the manufacturer's recommendations. Routine shutdown of the turbine, after generator breaker opening, shall be

executed by hand tripping the stop valve unless overspeed test is to be conducted. The tripping, whether by hand or overspeed, shall be accompanied by examination of all non-return extraction valves to assure their proper operation and in the case of malfunction of any non-return valve, the unit shall not be returned to service until proper corrections are made.

An adequate schedule of overspeed trip tests shall be conducted on turbines, steam driven auxiliaries, gas turbines, diesel or gas engines, or any prime mover or equipment subject to overspeed and requiring protection therefrom.

No machine shall ever be operated unless overspeed devices, stop valves, and other safety devices for the prevention of overspeed are fully operable and in first class condition.

There will be no smoking in the area of hydrogen tanks, manifolds, hydrogen seal oil tanks and equipment, or in the immediate vicinity of the hydrogen seals on the main generator shaft of hydrogen cooled units.

The purging of hydrogen cooled generators and the re-establishment of hydrogen atmospheres therein shall be conducted strictly in accordance with manufacturer's recommendations, observing all safety precautions.

#### **4.1.4 – COAL HANDLING EQUIPMENT**

While railroad crews are switching on plant property and spurs, plant car moving equipment, employees, cranes,

and bulldozers shall be kept clear of the spur right-of-way until the railroad switching is completed. Company employees will not participate or assist in switching work being conducted by railway employees and prime movers.

On properties where rail car movements are required, coupling opening or alignment shall not be attempted with cars or prime movers in motion.

Coal cars, car moving equipment, bulldozers, or scrapers shall never be boarded while in motion.

No bulldozer, grader, scraper, loader, forklift, or similar equipment with vertical movable blade, bucket, or forks shall ever be left with these suspended. They shall be lowered to the ground or onto substantial blocking before the operator leaves the cab or controls.

Employees shall not work on the track hopper immediately under carshakers while the carshaker is being hoisted or lowered.

Interlocks on conveyor belts must be kept operable and safety shutdown cables shall be tested at intervals necessary to assure proper functioning.

Coal handling facilities shall be inspected at least twice during a shift or as often as the situations or conditions warrant in order to protect the equipment against fire or other possible damage. These areas shall be kept as clean as possible.

#### **4.1.5 – COAL BUNKERS, ASH SILOS, AND FUEL TANKS**

No employee shall ever enter a bunker, silo, tank, or similar enclosure before establishing that the area is

properly ventilated and then entry shall be made only with a lifeline in the hands of a competent attendant.

Poisonous gases collect above fuel oil in storage. These gases at times have such an instant effect that they may overcome an employee in a few seconds. When inspecting fuel oil tanks, all possibility of contact with such gases should be eliminated.

#### **4.1.6 – CRANES**

Employees shall not work or remain under a suspended load.

Where crane operation requires the use of signals, a specific person shall be designated and the crane operator will disregard signals from any other source except in the event of an emergency.

Bridge or gantry cranes may be left with hooks suspended but they must not be left or parked with load. Proper shutdown of a bridge or gantry crane will include opening the circuit breakers both in the crane cab and at the supply to the crane trolleys. Proper shutdown of a boom crane or shovel will include lowering the bucket or shovel to the ground or suitable blocking.

When an outdoor crane; mobile, bridge, or gantry type is parked or left unattended, it shall be securely locked, blocked, cabled, or chained to prevent wind movement. Crane booms shall be lowered to the ground or securely lashed to suitable substantial support.

#### **4.1.7 – COOLING TOWERS**

All doors into cooling tower structures shall be provided with inside and outside latch handles.

Two employees are required to perform any work where it is necessary to enter the fan discharge or venturi section of induced draft towers.

Freezing temperatures require extreme caution in performing work around cooling towers. Always expect all surfaces to be covered with a film of ice. Guard against the hazard of falling icicles.

Decks are usually slippery the year around due to algae and moss. Be alert to this hazard.

#### **4.1.8 – INTAKE OR SCREEN HOUSES**

Intake bays, openings, and platforms giving access to trash racks and screens shall have adequate and secure guard rails and toe boards. No person shall ever climb down into or be lowered into an intake bay without using an attended life line.

Work on powered screens shall never be started before the driving motor is shut off and tagged. Replacement of shear pins in a traveling screen mechanism will be done only with the motor switch open and disconnected.

Swimming or fishing from trash rack platforms and trash booms is prohibited. Neither shall such platforms be used for boat launching, except by authorized persons engaged in necessary channel survey or maintenance work.

Screen houses when unattended in populated or publicly frequented areas shall be kept locked to prevent unauthorized entry.

#### **4.1.9 – FIRE PROTECTION**

Fire pumps shall be periodically test operated and any deficiencies noted immediately corrected. Test operations shall include automatic pressure switch start where such equipment is installed.

Plants equipped with general signaling or interplant communications shall have a designated fire emergency call on said system.

At intervals of not greater than one month, all fire line valves shall be inspected to see that they are in proper position. This same inspection shall be conducted subsequent to each power plant scheduled outage for overhaul or other work which might entail temporary changes to the fire protection system.

#### **4.1.10 – EXTENSION CORDS AND LAMPS**

In areas where pulverized fuel, fuel oil, gasoline, paint, thinners, natural gas, etc. may cause an explosive atmosphere, only explosion proof equipment shall be utilized.

Prior to using extension lamps and cords or power tools in wet areas such as condenser water boxes, boiler drums, hotwells, condensate storage tanks, or similar locations, such electrical equipment shall be thoroughly inspected by qualified personnel to assure that it is satisfactory for the conditions encountered.

#### **4.1.11 – ELEVATORS**

Employees shall not use station elevators not equipped with an emergency power supply during periods of

system trouble or plant emergency, thus avoiding being trapped in the elevator in case of power supply failure.

## **SECTION 2**

### **RULES FOR LINE, SERVICE, METER, AND SUBSTATION EMPLOYEES**

#### **4.2.1 – GENERAL**

Electrical facilities mentioned in this section include transmission and distribution lines, electrical equipment and apparatus, rotating machinery, switchgear, and such other equipment to be worked upon which may inadvertently be put into operation or which might be a hazard to employees working on or about the equipment. These operating rules shall apply to any work with such electrical facilities.

- (a) All electrical facilities shall be treated as though energized until properly grounded.
- (b) Montana-Dakota Utilities Co. Grounding Procedures Manual shall be followed.
- (c) Current transformers must have the secondary terminals short circuited before secondary circuits are opened.
- (d) When working in or near energized facilities over 300 volts:
  - (1) Work equipment shall be grounded and barricaded.
  - (2) Equipment grounds shall not be relied on for protection, and contact shall not be made without the necessary precautions being taken.

- (e) Two journeymen or one journeyman and a fourth-year apprentice shall be required for all repair work on or around wires carrying more than six hundred (600) volts. Emergencies involving life or property may be an exception.
- (f) When using live line tools under wet weather conditions, rubber gloves are required.
- (g) The operating practices of the Company shall conform to the codes of the states in which it operates, or, in lieu of such codes, the latest revision of the National Electrical Safety Code.
- (h) Minimum working distances from energized conductors: (National Electric Safety Code 441)

Minimum Working Clearance Distance

<u>Normal Voltage Class</u>	<u>From Exposed Energized Parts</u>	<u>Maximum Elevation</u>
750-15,000 volts	2 feet, 6 inches	8,000 Feet
34,500 volts	2 feet, 10 inches	6,000 Feet
46,000 volts	3 feet, 0 inches	6,000 Feet
69,000 volts	3 feet, 7 inches	6,000 Feet
115,000 volts	3 feet, 8 inches	6,000 Feet
230,000 volts	6 feet, 2 inches	6,000 Feet
345,000 volts	9 feet, 2 inches	3,000 Feet

#### **4.2.2 – DISPATCHER**

The term “Dispatcher” where used herein shall refer to the System Dispatcher having jurisdiction or some other qualified person acting in that capacity.

A Dispatcher shall be in charge of the operation of the electrical facilities and will be directly responsible for their safe operation. If system conditions are such that the work is not advisable, the Dispatcher will have the authority to defer it to another time. The Dispatcher must keep a complete written record of all instructions issued and reports received.

The on-duty Dispatcher must be thoroughly familiar with and understand all work in progress.

All verbal communications must be repeated back by the receiver to avoid any misunderstanding.

#### **4.2.3 – CLEARANCE ON ELECTRICAL FACILITIES**

Electrical facilities must not be operated or worked on without securing an order from the Dispatcher except in cases of emergency or danger to life or property. Such emergency operation must be immediately reported to the Dispatcher.

Due to occasional multiple utility and WAPA switching requirements, clearance procedures and tags may differ from our own. When involved with this type of activity be sure to follow dispatchers specific instructions.

When a working clearance is required, a request for clearance must be made to the Dispatcher, who will direct the necessary switching and tagging operations to deenergize the electrical facilities. The dispatcher shall take steps necessary to assure against facilities being accidentally reenergized and issue the clearance to the requesting party before work is commenced.

### **(a) Tagging**

Approved tags properly filled out and identified with an assigned clearance number shall be placed on all associated switches or controls. A person shall not report the switching or checking accomplished until the tags have been so placed.

Before any tags are ordered removed and electrical facilities operated the Dispatcher must require each and every person to whom a clearance is issued to personally release his clearance. If the clearance holder leaves before work is completed, the person shall inform the Dispatcher of his intentions, giving the name of the person to whom the clearance is to be transferred. The Dispatcher must hold communication directly with both persons in order to transfer the clearance.

Under no circumstances shall clearance be granted or terminated upon a predetermined time basis.

### **(b) Switching**

When switching, currents shall be interrupted by circuit breakers whenever possible. When air break switches are operated, the current shall first be minimized at the switching point by the Dispatcher. If an arc does not break when a switch is opened, the switch shall be immediately reclosed. A second attempt is permissible.

Electrical facilities disconnected from their energy source must have a visibly open air break switch or secure an adequate visible air clearance by removing taps or jumpers.

When Motor Operated Disconnects and Switches (MOD's & MOS's) are used for clearance, the switch shall be locked in the open position, the motor drive shall be uncoupled from the switch and tested under the latest operating procedures.

Only hot sticks designed for the work to be performed shall be used when operating hook disconnect switches.

When gang operated switches are to be operated, the person must check to see that the operating handle is properly grounded and check to see that the correct switch is being operated. Rubber gloves shall be used for all switching operations.

All gang operated switches shall be kept locked in either the open or closed position.

After operating a switch, all three blades must be checked by visual inspection to be sure they are properly opened or closed. For switches equipped with vacuum interrupters, all three interrupters must be checked by visual inspection after operating the switch to be sure the activating arms are in the proper position. Broken switch insulators or improperly operating switches shall be reported at once and repaired as soon as possible.

Grounds shall be removed before clearances are released.

#### **4.2.4 – GROUNDING DEENERGIZED ELECTRICAL EQUIPMENT**

A PERSONAL GROUND shall be installed above and below the worker, at the work location. If working on only one

conductor, the minimum working distance from energized conductors shall also be maintained from all ungrounded conductors. Whenever possible, 3-phase grounds shall be used.

#### **4.2.5 – INSULATED PROTECTIVE EQUIPMENT**

Insulated protective equipment includes gloves, sleeves, blankets, hose, hoods, and fiber coverup. All equipment must be properly inspected prior to use.

Gloves and sleeves shall be laboratory tested a minimum of every 60 days and other insulated protective equipment a minimum of every 12 months.

Leather glove protectors shall always be worn over the rubber gloves. Insulated protective equipment shall be inspected before using and properly stored when not in use.

Employees are required to use rubber protective equipment while “working on” or “in close proximity of” exposed energized lines or parts of equipment operating at 50 volts or more. Class 0 (1,000v maximum use voltage) and Class 2 (17,000v maximum use voltage) insulating gloves are available. Class 2 sleeves are also available for use where added protection is necessary.

No hot line jumpers shall be used having insulation rated less than 5,000 volts.

#### **4.2.6 – LIVE LINE PROCEDURE**

The minimum size conductor that may be worked on with live line tools shall be No. 6 ACSR or No. 4 AWG Copper.

Only one conductor or wire on the same structure shall be worked upon at one time.

Live line tools shall:

- Be handled as far as possible from the tools end of the stick.
- Never be placed on the ground where they can absorb moisture.
- Be kept in canvas bags or weatherproof containers and properly stored when not in use.
- Be dried out and treated at intervals depending upon the extent of use and exposure.
- Be subjected to an annual electrical test by use of equipment designed for this purpose.

**(a) Distribution**

Conductors energized at 50 volts or less may normally be worked on without the use of insulated protective equipment. Wherever doubt exists, use insulated protective equipment.

The use of insulated protective equipment is required for your protection when within reaching or falling distance of live conductors operating at voltages above 50 volts. Rubber gloves and sleeves shall be worn when applying insulated protective equipment on energized conductors. The nearest conductor must be covered first, then the next nearest and so on, until the working area is completely insulated. The protective equipment shall be removed

in reverse order. In all cases, ground wires shall be covered and treated as energized conductors.

Persons within reach of each other shall not work on different phases of the same circuit or on one energized phase and a ground conductor at the same time.

Whenever possible, circuits rated above 7,500 volts (phase to phase) shall be worked deenergized or with approved hot line tools. However, it will be permissible to work these circuits while energized using the proper insulated protective equipment under the following conditions:

- (1) Insulated boom and baskets or other appropriate devices approved for this purpose shall be used.
- (2) Where the aerial device has dual controls, only two persons will be required but one must remain on the ground. One of them shall be a journeyman, the other shall have at least 3 years experience in line work.

Circuits rated above 15,000 volts between phases shall be worked deenergized or with approved hot line tools.

When climbing “H” structures with X-braces carrying energized high voltage transmission lines, two (2) safety straps shall be used. One strap shall be securely fastened at all times.

## **(b) Hot Line Hold Clearance**

Where the line has automatic reclosing relays, they SHALL be disabled and, along with the breaker control switch, tagged.

Power Circuit Breakers that are under Supervisory Control and Automatic Data Acquisition (SCADA) control should be disabled in one of two ways before a Hot Line Hold Clearance can be issued:

- (1) Disable the breakers under the SCADA Hot Line Hold Clearance procedure, or
- (2) Disable the control point on the control points tabular profile. If dual control, the foreign system must also be disabled.

Some unattended substations and power system facilities are equipped, or capable of being equipped, to disable power circuit breaker automatic reclosing circuits by means of supervisory control. When stations are so equipped, it is permissible to issue Hot Line Hold Clearance without the physical placement of tags at the station, if the supervisory control provides:

- (1) A positive and reliable indication at each station that a Hot Line Hold Clearance is in effect, and
- (2) A positive and reliable indication back to the control center that the automatic recloser is indeed inoperable, and
- (3) That the circuitry involved in (1) and (2) above will maintain status in the event of an electrical failure.

If the line trips out while live line work is in progress, it SHALL NOT be reclosed until the crew is contacted and it is determined that **ALL** is clear of the line.

#### **4.2.7 – GENERAL SAFE WORK PRACTICES FOR POLE LINE WORK**

##### **(a) Belt and climbers**

Gaffs shall be replaced when they fail the gaff gage test.

Body belts shall be free from metal hooks and shall have a maximum of four tool loops.

Knives with exposed blades shall be carried in a sheath.

Both snaps of the safety strap **SHALL** be inspected to see that they are engaged with the D-rings before leaning back into the belt. A safety strap shall not be fastened where there is any chance for it to slip off the pole.

Before climbing, a person must be satisfied that the pole, ladder, or structure is strong enough to sustain their weight.

##### **(b) Handling Poles**

Mechanical equipment shall be used so far as possible in handling poles. Loaded poles shall be securely bound to the trailer and, after hauling a short distance, the load shall be checked and retightened if necessary.

Poles must be piled carefully so that there is no danger of rolling.

Proper clothing (long sleeved shirts and gloves) must be worn when handling poles. Care must be used to avoid skin contact with treated poles.

#### **4.2.8 – RULES FOR METER TESTERS**

The use of insulated protective equipment, appropriate for the voltage level, shall apply to employees engaged in meter testing.

##### **(a) Installation/removal of Meters**

Proper connections must be determined at the meter socket.

480 volt equipment must be deenergized.

##### **(b) Bypassing Meters**

Jumpers, when needed, shall be sized to carry the load, be securely connected, and have insulated clips.

Jumpers shall be connected to the load side first and then to the line side and shall be removed in reverse order.

##### **(c) Meter Testing**

When connecting instruments, make deenergized connections first and energized connections last and disconnect in reverse order.

Exposed ends of wires shall be insulated.

A voltmeter shall be used to determine energized or deenergized conditions.

Tools shall have insulated handles, shanks, and extensions.

#### **(d) Instrument Transformers**

Work on high voltage equipment shall be done with the equipment deenergized wherever possible.

Precautions shall be taken on potential transformer circuits to prevent short circuits.

#### **4.2.9 – SUBSTATIONS**

Before entering a substation, an inspection shall be made to see that no broken leads or other accidental contact has energized the fence or gate. All substation gates and fences shall be permanently grounded. Gates shall be locked except when personnel are working within the fence.

When driving is necessary within substations, all precautions must be taken to prevent contact with live electrical facilities (especially radio antennas).

Energized fuseholders shall be replaced using hot sticks.

Transformer taps shall not be changed until the transformer is proven deenergized.

Circuit breaker disconnect switches must not be used to break loads.

Suitable barriers must be erected for protection where it is necessary to work adjacent to live parts.

There shall be a minimum of two persons for maintenance work on large items of equipment.

Wherever possible, electrical facilities shall be taken out of service before filtering the oil. Oil circuit breakers

shall have the source bushings grounded unless it is in the open position, then all bushings must be grounded.

Before handling SF6 gas, contact the Substation Department for proper procedure.

## **SECTION 3 DISTRIBUTION**

### **4.3.1 – UNDERGROUND**

When temporary cable is installed, it shall be adequately protected and identified to safeguard employees and the public.

All pad mounted equipment shall be kept locked.

All scrap material shall be removed from the job site.

Rubber gloves shall be worn when opening any URD primary equipment.

It must be positively determined that loop feed circuits are in phase before closing the loop.

Pad mounted equipment disconnects shall be operated with an approved switching tool. A hot stick shall be used when removing or inserting primary loadbreak elbows in pad mounted equipment.

When engaged in submersible transformer maintenance and/or other below ground equipment, rubber gloves shall be worn. A rubber blanket to kneel on is recommended when working in submersible equipment.

A capacitance charge can be retained in an URD cable after it is isolated from an energized circuit. Protection from shock and flash are required.

Where multiple cables exist, cables other than the one being worked on shall be protected. The cable to be worked on shall be identified by electrical means unless its identity is obvious by reason of distinctive appearance.

### **4.3.2 – OVERHEAD**

Where wires are being strung in close proximity to live wires:

- (a) The wires being strung shall be considered at the same voltage as the live line.
- (b) Conductors shall be strung one at a time.
- (c) When removing wire, a rope shall be used on the trailing end to control it.
- (d) It is mandatory that bare conductor be grounded.
- (e) When underbuilding on an energized transmission line, the transmission line shall be placed under a hot line hold order.

When stringing conductors over energized lines, precautions must be taken to prevent contact.

When guiding wire onto a power driven take-up reel, stand well back so there is no chance of being accidentally drawn into the reel.

### **4.3.3 – PRIMARY CUT-OUTS**

When working with primary cutouts, the following rules shall be strictly observed:

- (a) It is mandatory that a hot stick be used to operate cut-outs.
- (b) A person on a pole or structure shall not attempt

to pull or close a cut-out until they have been properly secured.

#### **4.3.4 – TRANSFORMERS**

After the transformer is installed, a secondary voltage check must be taken before secondary connections are made.

Warning signs must be placed at banked transformers. However, the absence of a sign should not be depended upon as proof that the transformer is not banked.

**Do not stand on pad mounted or pole mounted distribution transformers to do work.**

#### **4.3.5 – CAPACITORS**

After disconnecting a capacitor from the line, it should not be short circuited until five minutes have elapsed.

Capacitor terminals shall always remain short circuited while the capacitor is being worked on or while it is in storage.

If the arc does not break readily when disconnecting a capacitor, close the circuit immediately, then reopen it.

Capacitors shall be tested prior to energizing. An aerial bucket, telescoping line tool or other remote cut-out closing device shall be used.

#### **4.3.6 – TREE TRIMMING**

Where guide lines are used to control the trunk or large branches, they shall be securely snubbed before any cutting is done. They should never be held by hand.

Persons operating power saws shall see that they are in a safe position and have good footing, that all vines or

branches are removed from the work area, and that others are in the clear of the saw and the tree being felled.

When a wood chipper is used, everyone involved in the actual operation of the chipper shall wear the necessary and proper personal protective equipment (safety goggles or glasses, face shield, hard hat, hearing protection, and work gloves, minimum).

#### **4.3.7 – CONNECTING CUSTOMERS EQUIPMENT**

Before energizing the customer's wiring, proper connections must be made, a voltage check must be taken at meter socket/main switch, and three phase circuits must be checked for proper phase rotation.

### **SECTION 4 USE OF AERIAL EQUIPMENT**

#### **4.4.1 – GENERAL**

The insulated boom and basket shall be electrical tested under the latest operating procedures, a minimum of once a year.

A body harness with a shock absorber lanyard attached to the boom shall be used while work is being carried on from an aerial basket. Entering or leaving the basket shall be done only with the basket resting firmly on the ground or in the cradled position if the truck is so designed.

**No person is allowed to ride in the aerial basket when the truck is in transit. Some work practices may be an exception.**

A person shall not stand on top of the basket, on planks placed across the top of the basket, or on ladders placed in or on the basket while performing work.

Adequate clearance shall be maintained so that protruding tools will not come in contact with conductors, tree limbs, or other obstructions.

When working aloft, all tools shall be secured when not in use.

Prior to traveling, lower the lower boom before properly stowing main boom in the boom rest. Secure boom in place with hold-down strap.

## **SECTION 5**

### **SAFE WORK PRACTICES FOR ARC FLASH DANGERS IN DISTRIBUTION & TRANSMISSION**

#### **4.5.1 – General**

A minimum effective clothing system with an arc rating or Arc Thermal Performance Value (ATPV) of 4 cal/cm<sup>2</sup> shall be required for all energized secondary work.

#### **4.5.2 – Arc Flash Clothing Rules**

**(a) Clothing Ratings.** Qualified clothing for Arc Flash must have the following ratings on the label or labels to be acceptable for Arc Flash Protection:

- FR Rated: Fire Resistance Clothing
- ATPV(Arc Thermal Performance Value) Rating:  
This is the rating of the clothing in the units of Calories/cm<sup>2</sup>. For example: An ATPV rating of 10 = 10 Cal/cm<sup>2</sup> protection.

- (b) Layering of Clothes.** It is allowable to layer qualified clothes to gain a higher overall rating. The ATPV ratings would be added together for an overall protection rating. No undergarments or layers of a clothing system can contain acetate, nylon, polyester, or polypropylene unless they specifically state on the label that they are Flame Resistant.
- (c) Long Sleeve Requirement.** Long Sleeve shirts or garments are required where clothing systems are needed to protect against Arc Flash Incident Energy. Protective Rubber Sleeves do not have any rating for arc flash protection.
- (d) Two Basic Levels of Clothing Systems:**
- 1.  $4 \text{ cal/cm}^2$  flame resistant (FR) rated clothing system** is a collection of clothing items with a minimum arc flash rating of  $4 \text{ cal/cm}^2$  (ATPV=4) and consists of: pants, long sleeve shirt, rubber gloves w/leather protectors, hard hat, safety glasses, face shield, and hearing protection (optional).
  - 2.  $10 \text{ ca/cm}^2$  flame resistant (FR) rated clothing system** is a collection of clothing items with a minimum arc flash rating of  $10 \text{ cal/cm}^2$  (ATPV=10) and consists of: pants, long sleeve shirt, rubber gloves with leather protectors, hard hat, safety glasses, face shield, and hearing protection (optional).

### 4.5.3 – Work Rules

- (a) Energized Secondary Distribution Work - 1000 Volts and below:**

1. **Minimum Clothing.** A clothing system with minimum FR clothing rating of 4cal/cm<sup>2</sup> shall be worn while working on or around exposed energized equipment in any situation that requires:
  - i. **Hands on Rubber Glove Work** – Testing, Installing or Removing Conductors, Cable training, tightening bolts, or any other work that requires touching energized parts.
  - ii. **Operational Work** – Installing meters, removing meters, or hooking up a recording device on energized secondary.
2. **Engineering Control - Meters.** Voltmeters, Multi-Meters, Amp Meters, or Clamp meters with a CEN Category IV rating including Category IV rated test leads and accessories shall be used when taking readings in the secondary voltage area from the transformer to the customer service equipment. There will be exceptions (Rotation Meters, Primary rated Ammeters, Recording meters, etc.) Exceptions will require the use of a face shield when used.
3. **System KVA Limit.** All transformers or equipment (Overhead or Underground) fed from a transformer system rated above 150 KVA should be de-energized prior to any physical work performed on energized connections or conductors. If energized work is required an Arc Flash Study is required to determine the Clothing System requirements needed for protection.

**4. Tools Engineering Control.** It is recommended that tools used to work on energized connections should be either insulated or have an insulated link to help minimize the risk of an arc flash.

**5. System Voltage Limit.** All equipment (Overhead or Underground) with a secondary voltage rating greater than 300 volts phase to phase should be de-energized prior to any physical work performed on energized connections or conductors. If energized work is required an Arc Flash Study is required to determine the Clothing System requirements needed for protection. This includes single phase 240/480 and three phase 277/480 equipment.

**6. Face Shield Required Work.** The “Hands on Rubber Glove Work” and the “Operational Work” defined previously will require the use of a Face Shield as a part of the Clothing System. There are two exceptions:

- i. **When Working from a Pole, Ladder, or Bucket** on energized secondary the use of a Face Shield is *Optional*.
- ii. **When using an IEC Category IV rated meter** the use of a Face Shield is *Optional*.

**(b) Overhead Primary Distribution Work – above 1000 Volts.**

**1. Minimum clothing.** A clothing system with minimum FR clothing rating of  $4\text{cal/cm}^2$  shall be worn while

working on or around exposed energized equipment in any situation where it is the intent to:

- i. **Use a Rubber Glove Technique** to work directly on a conductor, device, or other energized part.
- ii. **Work off a Pole, Ladder, or out of a Bucket.**

**2. Face Shield and Hearing Protection**– The use of the Face Shield or Hearing Protection are optional when working Overhead Primary.

**(c) Dead Front Underground Primary Distribution Work – above 1000 Volts.**

1. **Minimum clothing.** A clothing system with minimum FR clothing rating of 4cal/cm<sup>2</sup> shall be worn while working on or around exposed energized equipment in any situation where it is the intent to:
  - i. **Operate Equipment** that exposes energized bushings including installing or removing: elbows, protective grounding, testing equipment (Phasing, HiPots, etc.), elbow arresters, or insulated bushing caps, etc.
  - ii. **Physical Exertion using a Rubber Glove Technique** on and energized cable or device with the intent to create movement such as cable training, breaking loose a stuck elbow, guiding of an elbow, etc.
2. **Face Shield Required Work.** Any person with 3 Feet of energized devices while performing the “Operate Equipment” or “Rubber Glove” work indicated above will require the use of a Face Shield

as a part of the Clothing System for protection from Arc Flash energy.

**(d) Live Front Three Phase Underground Primary Distribution Work – above 1000 Volts.**

**1. *Minimum Clothing.*** A clothing system with minimum FR clothing rating of  $10\text{cal}/\text{cm}^2$ , including a Face Shield, shall be worn while working on or around exposed energized equipment in any situation where it is the intent to:

- i. Operate an Air Break Device such as a Fuse Unit.
- ii. Remove or Handle Safety Barriers.
- iii. Grounding the equipment.
- iv. Inserting Test Equipment into exposed energized primary. (Phasing, HiPots, Ammeter, etc.)
- v. Any other work that may require contact with live parts.

**2. *Distance to Live Parts.*** Every effort should be made to keep your body a **minimum of 36 inches** from exposed live parts when performing any of the defined work listed in (d)1. above.

**3.** It is recommended that any time you are working around live front underground equipment within the outer doors that you wear the  $10\text{ Cal}/\text{cm}^2$  clothing system including the Face Shield and Hearing Protection. Proper use of the Manufacturer supplied Barriers system is also required.

**(e) Distribution Substations**

**1. *Minimum Clothing.*** A clothing system with minimum FR clothing rating of  $10\text{cal}/\text{cm}^2$ , including

a Face Shield, shall be worn while working on or around exposed energized equipment in any situation where it is the intent to:

- i. Operate any Air Break Device such as a Fuse, Blade Disconnect, Regulator Bypass Switch, or Gang Operated Air Break Switch.
- ii. Grounding the Equipment or Bus.
- iii. Put Test Equipment into Exposed Primary (Phasing, Amp Meter, etc)
- iv. Any other work that may involve contact with energized parts.

**2. Distance to Live Parts.** Every effort should be made to keep your body a **minimum of 7 feet 6 inches** from exposed live parts when performing the work listed in (e)1. above.

**3. Rubber Glove Work Method.** Any time that work is to be performed using a Rubber Glove Work Method directly on an energized conductor within a Distribution Substation, an employee must wear a clothing system with an Arc Flash Rating greater than the three phase incident Arc Flash energy available. If that rating is not know, an engineering study must be performed in order to determine incident energy levels or the system must be de-energized to perform the work.

**(f) Transmission Lines and Substations**

**1. Minimum Clothing.** Typically the distances between an employee and energized parts will not

require the use of an Arc Flash Clothing System for normal operations or maintenance.

**2. Hot Line Work.** If hot stick line work is planned it would be required to perform an Arc Flash Incident study to determine a clothing system to protect workers for the expected working distances involved.

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## **TYPE A SOIL**

### **Defined:**

1. Cohesive soils.
2. Unconfined compressive strength exceeds 1.5 T/SF.
3. Cemented granular or caliche may be included.

### **Exceptions:**

1. Fissured or subject to vibration from heavy traffic or similar effects.
2. Sloped layered system dipping into excavation areas on 4H:1V or greater.
3. Other factors requiring a less stable classification such as excessive moisture or free running or standing water.
4. Previously disturbed soil.
5. Cuts in excess of 20 ft.

## **TYPE B SOIL**

### **Defined:**

1. Cohesive soils with UCS of .5 T/SF min. to 1.5 T/SF max.
2. Type A soils subject to external vibrations or loading.
3. Type A soils that are fissured.
4. Type A soils previously disturbed, but well compacted.

### **Exceptions:**

1. Cuts in excess of 20 ft.
2. Soils with free running or standing water.

## TYPE C SOIL

### Defined:

1. Cohesive soil with UCS less than .5 T/SF.
  2. Granular soils including gravel, sand and loamy sand.
  3. Saturated or submerged soils.
  4. Type "A" and "B" soils –  
Option 1 - OSHA 1926.652 (b)(1).
- Recommend specific written safety plan.
  - May require trench box or shoring.
  - Consult with Safety Manager immediately.
  - Do not proceed until precautions are taken.

### **Condition A:**

4 ft. maximum vertical height is allowable for Type A and Type B soils - Max. 20 ft. cut

### **Condition B:**

3½ maximum vertical height is allowable for Type A

### **Condition A & B:**

Applies to cohesive soils only - not granular.

## COHESIVE SOILS

### Test for Cohesive Soils

1. Cohesive soils do not crumble and are plastic and easily molded when moist.
2. Can easily be shaped into a ball and/or rolled into pencil-sized threads before crumbling.
3. Type A Soil - UCS = 1.5 or more T/SF  
Type B Soil - UCS = .5 to 1.5 T/SF  
Type C Soil - UCS = .5 or less T/SF
4. Refer to soils report for blow counts or UCS.
5. May use penetrometer to shear vane as a guide to UCS of cohesive soil.

## GRANULAR SOILS

### Test for Granular Soils

1. Granular soil cannot be molded when moist and crumbles easily when dry.
2. Moist granular soils that contain some cohesive material will exhibit signs of cohesion between particles.
3. Penetrometer does not work on granular soils.
4. Granular soil has no cohesive strength.

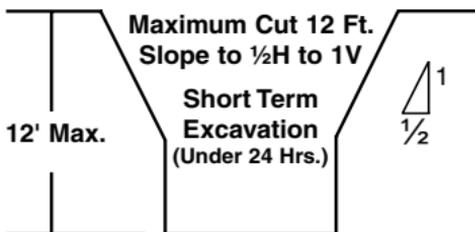
### WARNING:

1. Excessive moisture or drying will cause changes in the apparent angle of incline of granular soils and thus the time an excavation is open is of critical importance.
2. Granular soils are susceptible to shock and/or vibration failure.
3. Granular material that would exhibit cohesive properties when moist will lose those properties when either saturated or dried.

## **ADDITIONAL SAFETY CONSIDERATIONS**

1. Ladders or ramps required within 25 ft. of men working in ditches over 4 ft. in depth.
2. Excavated materials must be stored more than 2 ft. from edge of the excavation.
3. Do not allow employees underneath suspended loads.
4. Hard hats shall be worn by all personnel at all times when on the job site.
5. Personal protective equipment (eye protection, toe shields, etc.) must be used when a hazard exists.
6. **Excavation depth over 20 feet** – Sloping or benching shall be designed by a registered professional engineer.

## TYPE A SOIL

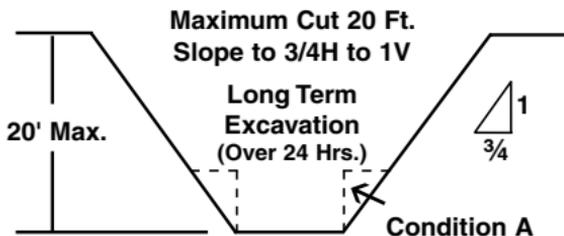


Top width equals 1 x depth plus bottom width.

If bottom width is 4 ft., then:

<u>Depth</u>	<u>Width</u>
8 ft.	12 ft.
10 ft.	14 ft.
12 ft. Max.	16 ft.

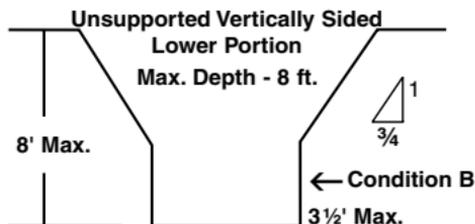
(Cuts in excess of 12 ft. require sloping on 3/4H to 1V.)



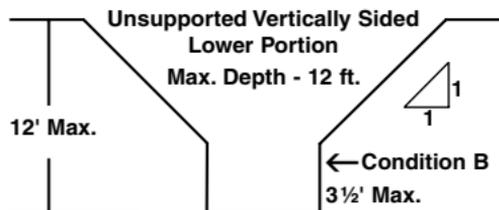
Top width equals 1.5 x depth plus bottom width.

If bottom width is 4 ft., then:

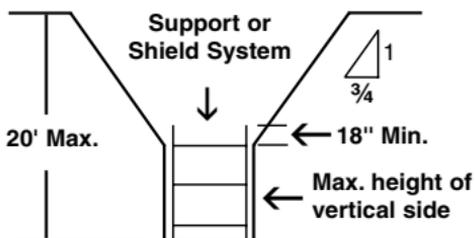
<u>Depth</u>	<u>Width</u>	<u>Depth</u>	<u>Width</u>
8 ft. . . .	16 ft.	16 ft. . . .	28 ft.
10 ft. . . .	19 ft.	18 ft. . . .	31 ft.
12 ft. . . .	22 ft.	20 ft. Max.	34 ft.
14 ft. . . .	25 ft.		



Excavations 8 feet or less in depth which have unsupported vertically sided lower portions shall have a maximum vertical side of 3½ feet.

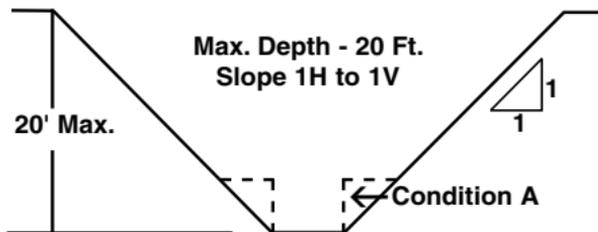


Excavations more than 8 feet but not more than 12 feet in depth which have unsupported vertically sided lower portions shall have a maximum allowable slope of 1H:1V and a maximum vertical side of 3½ feet.



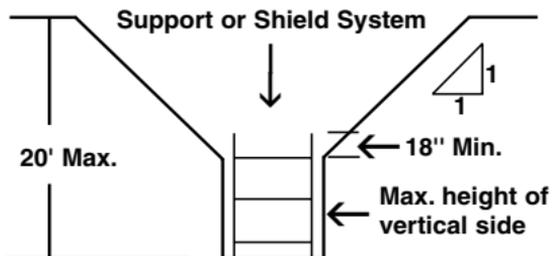
All excavations 20 feet or less in depth which have vertically sided lower portions that are supported or shielded have a maximum allowable slope of ¾H:1V. The support or shield system must extend at least 18 inches above the top of the vertical side.

## TYPE B SOIL



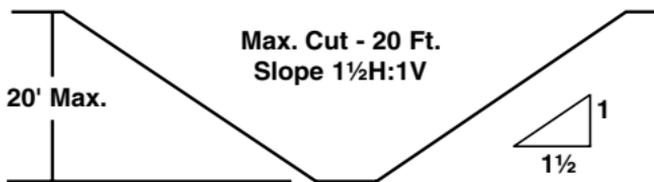
Top width equals 2 x depth plus bottom width.  
If bottom width is 4 ft., then:

<u>Depth</u>	<u>Width</u>	<u>Depth</u>	<u>Width</u>
8 ft. . . .	20 ft.	16 ft. . . .	36 ft.
10 ft. . . .	24 ft.	18 ft. . . .	40 ft.
12 ft. . . .	28 ft.	20 ft. . . .	44 ft.
14 ft. . . .	32 ft.		



All excavations 20 feet or less in depth which have vertically sided lower portions shall be shielded or supported to a height at least 18 inches above the top of the vertical side. All such excavations shall have a maximum allowable slope of 1H:1V.

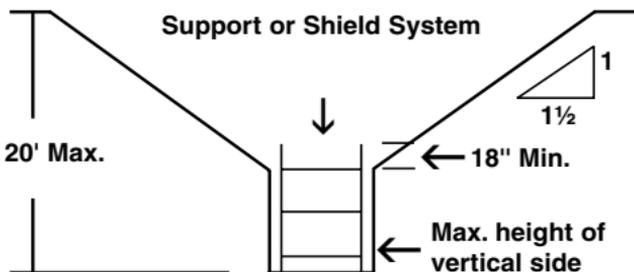
## TYPE C SOIL



Top width equals 3 x depth plus bottom width.  
If bottom width is 4 ft., then:

<u>Depth</u>	<u>Width</u>	<u>Depth</u>	<u>Width</u>
8 ft. . . .	28 ft.	16 ft. . . .	52 ft.
10 ft. . . .	34 ft.	18 ft. . . .	58 ft.
12 ft. . . .	40 ft.	20 ft. . . .	64 ft.
14 ft. . . .	46 ft.		

All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1½H:1V.



All excavations 20 feet or less in depth which have vertically sided lower portions shall be shielded or supported to a height at least 18 inches above the top of the vertical side. All such excavations shall have a maximum allowable slope of 1½H:1V.

**TABLE D – 1.1**  
**ALUMINUM HYDRAULIC SHORING–VERTICAL SHORES FOR SOIL TYPE A**

DEPTH OF TRENCH (FEET)	HYDRAULIC CYLINDERS				
	MAXIMUM HORIZONTAL SPACING (FEET)	MAXIMUM VERTICAL SPACING (FEET)	WIDTH OF TRENCH (FEET)		
			UP TO 8	OVER 8 UP TO 12	OVER 12 UP TO 15
OVER 5 UP TO 10	8	4	2 INCH DIAMETER	2 INCH DIAMETER NOTE (2)	3 INCH DIAMETER
OVER 10 UP TO 15	8				
OVER 15 UP TO 20	7				
OVER 20	NOTE(1)				

Footnotes to tables, and general notes on hydraulic shoring, are found in Appendix D, Item (g).

Note (1): See Appendix D, Item (g) (1)

Note (2): See Appendix D, Item (g) (2)

**TABLE D – 1.2**  
**ALUMINUM HYDRAULIC SHORING–VERTICAL SHORES FOR SOIL TYPE B**

DEPTH OF TRENCH (FEET)	HYDRAULIC CYLINDERS				
	MAXIMUM HORIZONTAL SPACING (FEET)	MAXIMUM VERTICAL SPACING (FEET)	WIDTH OF TRENCH (FEET)		
			UP TO 8	OVER 8 UP TO 12	OVER 12 UP TO 15
OVER 5 UP TO 10	8	4	2 INCH DIAMETER	2 INCH DIAMETER NOTE (2)	3 INCH DIAMETER
OVER 10 UP TO 15	6.5				
OVER 15 UP TO 20	5.5				
OVER 20	NOTE(1)				

Footnotes to tables, and general notes on hydraulic shoring, are found in Appendix D, Item (g).

Note (1): See Appendix D, Item (g) (1)

Note (2): See Appendix D, Item (g) (2)

**TABLE D – 1.3**  
**ALUMINUM HYDRAULIC SHORING–WALER SYSTEMS - FOR SOIL TYPE B**

A-11

DEPTH OF TRENCH (FEET)	WALES		HYDRAULIC CYLINDERS WIDTH OF TRENCH (FEET)						TIMBER UPRIGHTS MAX. HORIZ. SPACING (ON CENTER)		
	VERTICAL SPACING (FEET)	*SECTION MODULUS (IN <sup>3</sup> )	UP TO 8		OVER 8 UP TO 12		OVER 12 UP TO 15		SOLID SHEET	2 FT.	3 FT.
			HORIZ. SPACING	CYLINDER DIAMETER	HORIZ. SPACING	CYLINDER DIAMETER	HORIZ. SPACING	CYLINDER DIAMETER			
OVER 5 UP TO 10	4	3.5	8.0	2 IN	8.0	2 IN <sup>(2)</sup>	8.0	3 IN	—	—	3 x 12
		7.0	9.0	2 IN	9.0	2 IN <sup>(2)</sup>	9.0	3 IN			
		14.0	12.0	3 IN	12.0	3 IN	12.0	3 IN			
OVER 10 UP TO 15	4	3.5	6.0	2 IN	6.0	2 IN <sup>(2)</sup>	6.0	3 IN	—	3 x 12	—
		7.0	8.0	3 IN	8.0	3 IN	8.0	3 IN			
		14.0	10.0	3 IN	10.0	3 IN	10.0	3 IN			
OVER 15 UP TO 20	4	3.5	5.5	2 IN	5.5	2 IN <sup>(2)</sup>	5.5	3 IN	3 x 12	—	—
		7.0	6.0	3 IN	6.0	3 IN	6.0	3 IN			
		14.0	9.0	3 IN	9.0	3 IN	9.0	3 IN			
OVER 20	NOTE <sup>(1)</sup>										

Footnotes to tables, and general notes on hydraulic shoring, are found in Appendix D, Item (g).

Note (1): See Appendix D, Item (g) (1)

Note (2): See Appendix D, Item (g) (2)

\*Consult product manufacturer and/or qualified engineer for Section Modulus of available wales.

**TABLE D – 1.4**  
**ALUMINUM HYDRAULIC SHORING–WALER SYSTEMS - FOR SOIL TYPE C**

DEPTH OF TRENCH (FEET)	WALES		HYDRAULIC CYLINDERS WIDTH OF TRENCH (FEET)						TIMBER UPRIGHTS MAX. HORIZ. SPACING (ON CENTER)		
	VERTICAL SPACING (FEET)	*SECTION MODULUS (IN <sup>3</sup> )	UP TO 8		OVER 8 UP TO 12		OVER 12 UP TO 15		SOLID SHEET	2 FT.	3 FT.
			HORIZ. SPACING	CYLINDER DIAMETER	HORIZ. SPACING	CYLINDER DIAMETER	HORIZ. SPACING	CYLINDER DIAMETER			
OVER 5 UP TO 10	4	3.5	6.0	2 IN	6.0	2 IN <sup>(2)</sup>	6.0	3 IN	3 x 12	—	—
		7.0	6.5	2 IN	6.5	2 IN <sup>(2)</sup>	6.5	3 IN			
		14.0	10.0	3 IN	10.0	3 IN	10.0	3 IN			
OVER 10 UP TO 15	4	3.5	4.0	2 IN	4.0	2 IN <sup>(2)</sup>	4.0	3 IN	3 x 12	—	—
		7.0	5.5	3 IN	5.5	3 IN	5.5	3 IN			
		14.0	8.0	3 IN	8.0	3 IN	8.0	3 IN			
OVER 15 UP TO 20	4	3.5	3.5	2 IN	3.5	2 IN <sup>(2)</sup>	3.5	3 IN	3 x 12	—	—
		7.0	5.0	3 IN	5.0	3 IN	5.0	3 IN			
		14.0	6.0	3 IN	6.0	3 IN	6.0	3 IN			
OVER 20	NOTE <sup>(1)</sup>										

Footnotes to tables, and general notes on hydraulic shoring, are found in Appendix D, Item (g).

Note (1): See Appendix D, Item (g) (1)

Note (2): See Appendix D, Item (g) (2)

\*Consult product manufacturer and/or qualified engineer for Section Modulus of available wales.

## **ROPE/ROPE MATERIAL**

**MANILA:** A natural occurring fiber commonly used as rope material. Exhibits less elasticity, resiliency and strength than other rope materials.

**NYLON:** Combines high strength with high elasticity. Nylon is an excellent choice for applications where shock is a factor. Resistant to rot, mildew and most chemicals. Use with pulleys, blocks and sheaves.

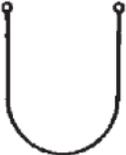
**POLYESTER:** Has high strength with lower elasticity than nylon. Highly resistant to sunlight, weather, rot, mildew, petroleum products and most chemicals. For guy lines, sash cord, pulleys, tiedowns and halyards.

**POLYPROPYLENE:** Has good strength and elasticity. Resists rot, mildew and most chemicals. Use for barrier ropes, tie-downs and marine applications.

**WORKING LOAD LIMITS:** Because of the wide range of rope use, rope condition, and exposure to several factors affecting rope behavior, it is impossible to make blanket recommendations as to working loads. As a guideline, the working load percentage is between 11% and 20% of new rope breaking strength for slowly applied loads on rope in good condition where forces are predictable and temperatures are normal. These normal working loads do not cover dynamic conditions or sustained loads.

Diameter (Inches)	MAXIMUM WORKING LOAD IN POUNDS (lbs)			
	MANILA	NYLON	POLYESTER	POLY- PROPYLENE
3/16	81	110	110	136
1/4	108	182	182	213
5/16	180	281	281	323
3/8	243	407	407	459
7/16	315	550	550	595
1/2	477	704	704	714
9/16	621	880	880	867
5/8	792	1,144	1,100	1,054
3/4	972	1,562	1,375	1,445
13/16	1,170	1,870	1,705	1,683
7/8	1,386	2,200	1,980	1,955
1	1,620	2,750	2,420	2,380
1-1/8	2,160	3,630	3,245	3,128
1-1/4	2,430	4,125	3,652	3,570
1-5/16	2,700	4,730	4,125	3,995
1-1/2	3,330	5,830	5,148	5,049
1-5/8	4,050	7,150	6,270	6,120
1-3/4	4,770	8,580	7,458	7,310
2	5,580	10,120	8,800	8,840

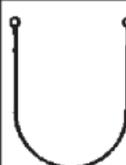
## MANILA ROPE SLINGS RATED CAPACITY IN POUNDS

ROPE DIAMETER	EYE TO EYE SLING						
	 VERTICAL	 CHOKER	 VERTICAL BASKET	 30° BASKET	 45° BASKET	 60° BASKET	 85° BASKET
1/2"	480	240	960	830	680	480	83
5/8"	790	395	1,580	1,370	1,120	790	137
3/4"	970	485	1,940	1,680	1,370	970	168
1"	1,620	810	3,240	2,810	2,290	1,620	281
1-1/8"	2,160	1,080	4,320	3,740	3,050	2,160	374
1-1/4"	2,430	1,220	4,860	4,210	3,440	2,430	421

# NYLON WEB SLINGS

## CAPACITY 1,000 LBS. PER INCH OF WIDTH

### RATED CAPACITIES IN POUNDS

SLING WIDTH INCHES	EYE AND EYE WITH FLAT EYE OR TWISTED EYE SLINGS						
	 VERTICAL	 CHOKER	 VERTICAL BASKET	 30° BASKET	 45° BASKET	 60° BASKET	 85° BASKET
1"	1,000	750	2,000	1,700	1,400	1,000	174
2"	2,000	1,500	4,000	3,500	2,800	2,000	348
3"	3,000	2,200	6,000	5,200	4,200	3,000	522
4"	4,000	3,000	8,000	6,900	5,700	4,000	695
5"	5,000	3,700	10,000	8,700	7,100	5,000	870
6"	6,000	4,500	12,000	10,400	8,500	6,000	1,044

## RATED CAPACITIES FOR SINGLE LEG SLINGS 6 x 19 IMPROVED PLOW STEEL GRADE ROPE WITH FIBER CORE MECHANICAL SPLICE

ROPE DIAMETER	RATED CAPACITIES IN TONS (2,000 LBS.)							
								
	VERTICAL	CHOKER	VERTICAL BASKET*	45° BASKET*	30° BRIDLE	45° BRIDLE	60° BRIDLE	85° BRIDLE
3/8"	1.1	0.85	2.2	1.6	1.9	1.6	1.1	.19
1/2"	2.0	1.5	3.9	2.8	3.4	2.8	2.0	.35
5/8"	3.1	2.3	6.2	4.4	5.3	4.4	3.1	.53
3/4"	4.4	3.3	8.8	6.2	7.6	6.2	4.4	.76
1"	7.7	5.8	15.0	11.0	13.0	11.0	7.7	1.3
1-1/8"	9.5	7.1	19.0	13.0	16.0	13.0	9.5	1.6

\* These values only apply when the D / d ratio is 20 or greater where:  
 D = Diameter of curvature around which the body of the sling is bent.  
 d = Diameter of the rope.

<b>ROPE DIAMETER</b>	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"
<b>NO. OF CLIPS FOR EACH ROPE END</b>	2	3	3	4	5	6
<b>MINIMUM CLIP SPACING, INCHES</b>	2-1/4"	3"	3-3/4"	4-1/2"	6"	7-1/2"

**WIRE ROPE, MATERIAL = IMPROVED PLOW STEEL**

**CLIPS, MATERIAL = DROP FORGED STEEL**



**NOTE: EYES IN WIRE ROPE SLINGS SHALL NOT BE FORMED BY USING ROPE CLIPS**

## STEEL CHAIN (SLINGS)

A common misconception is “chain is chain.” Not all chain is intended, thus not approved, for lifting purposes—check with suppliers to verify usage. Chain, like all equipment, shall be inspected prior to use. Links, fasteners, and hardware are examined for wear, distortion and cracks. Chain shall not be used if found to be defective.

### Nominal Chain Size



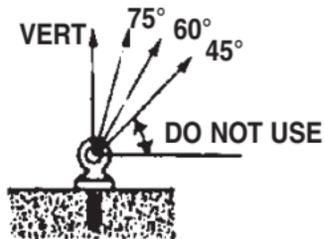
### Minimum Allowable Chain Size at Any Point of Link

Chain Size, Inches	Minimum Allowable Chain Size, Inches
1/4	13/64
3/8	19/64
1/2	25/64
5/8	31/64
3/4	19/32
7/8	45/64
1	13/16
1-1/8	29/32
1-1/4	1
1-3/8	1-3/32
1-1/2	1-3/16
1-3/4	1-13/32

**Rated Capacity (Working Load Limit, lbs.) For Alloy Steel Chain Slings  
(Horizontal angles in parentheses)**

Chain Size Inches	Single branch sling—90° loading	Double sling vertical angle (1)			Triple and quadruple sling (3) vertical angle (1)		
		30° (60°)	45° (45°)	60° (30°)	30° (60°)	45° (45°)	60° (30°)
		1/4	3,250	5,650	4,550	3,250	8,400
3/8	6,600	11,400	9,300	6,600	17,000	14,000	9,900
1/2	11,250	19,500	15,900	11,250	29,000	24,000	17,000
5/8	16,500	28,500	23,300	16,500	43,000	35,000	24,500
3/4	23,000	39,800	32,500	23,000	59,500	48,500	34,500
7/8	28,750	49,800	40,600	28,750	74,500	61,000	43,000
1	38,750	67,100	54,800	38,750	101,000	82,000	58,000
1-1/8	44,500	77,000	63,000	44,500	115,500	94,500	66,500
1-1/4	57,500	99,500	81,000	57,500	149,000	121,500	86,000
1-3/8	67,000	116,000	94,000	67,000	174,000	141,000	100,500
1-1/2	80,000	138,000	112,900	80,000	207,000	169,000	119,500
1-3/4	100,000	172,000	140,000	100,000	258,000	210,000	150,000

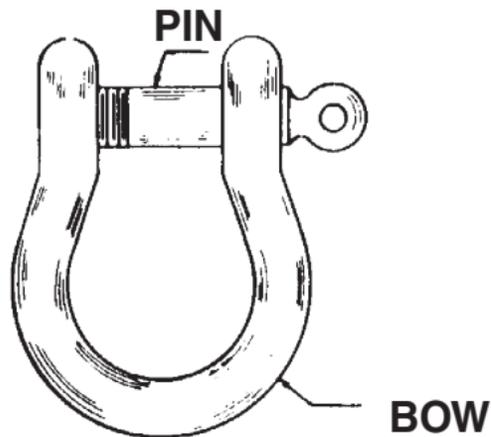
**TYPICAL SAFE WORKLOADS OF DROP FORGED  
STEEL SHOULDER EYE BOLTS**



**DO NOT USE SHOULDERLESS EYES  
FOR ANGULAR LOADING**

Stock Diameter (Inches)	ANGLE OF PULL				
	Vertical lbs.	75° lbs.	60° lbs.	45° lbs.	Less than 45° lbs.
1/4	600	275	175	125	<b>NOT RECOMMENDED</b>
5/16	800	440	280	200	
3/8	1,200	680	420	300	
1/2	2,200	1,210	770	550	
5/8	3,500	1,925	1,225	875	
3/4	5,200	2,860	1,820	1,300	
7/8	7,200	3,960	2,520	1,800	
1	10,000	5,500	3,500	2,500	
1-1/4	15,200	8,360	5,320	3,800	
1-1/2	21,400	11,770	7,490	5,350	

## SAFE WORKING LOAD FOR SHACKLES



PIN DIAMETER	3/8"	1/2"	5/8"	3/4"	7/8"	1"	1-1/4"
SAFE LOAD TONS (2,000 lbs.)	.5	1.0	1.4	2.2	3.2	4.3	6.7

## HAND SIGNALS FOR BOOM EQUIPMENT OPERATION



**Use Load Line**



**Use Whip Line**



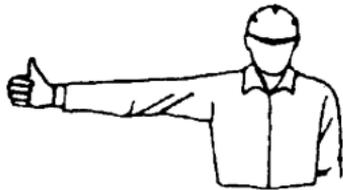
**Raise Load Slowly**



**Lower Load Slowly**



**Lower Boom**



**Raise Boom**



**Lower  
Load**



**Raise  
Load**



**Retract Boom**



**Extend Boom**



**Lower Boom  
& Raise Load**



**Raise Boom  
& Lower Load**



**Swing**



**Stop**

# **COMMERCIAL MOTOR VEHICLES (CMV) 49 CFR – FEDERAL MOTOR CARRIER SAFETY REGULATIONS (FMCSR)**

## **DEFINITION**

Any single or combination vehicle (truck/trailer) used in commerce when:

- a) the GVWR is 10,001 or more pounds; or
- b) is designed or used to transport more than 8 passengers (including the driver) for compensation; or
- c) is designed or used to transport more than 15 passengers (including the driver) and is not used to transport for compensation; or
- d) the vehicle is used to transport hazardous materials that require the vehicle to be placarded.

## **DRIVER QUALIFICATION**

Every employee who operates a CMV for company business is required to be qualified as outlined in the FMCSR's – Part 391. The specifics of being qualified is collected in a Driver Qualification File for each driver, this includes:

- a) Written exam
- b) Road test
- c) Certification of written exam and road test
- d) Physical examination (every two years)
- e) Record of violations
- f) Employment verification

Those who drive vehicles in excess of 26,000 lb. GVWR, transport 15 or more passengers, or transport placardable quantities of hazardous materials, are required to participate in the controlled substances testing program.

Annually, each driver shall report any traffic violations committed during the previous 12 months (form #20391). This and other related material is reviewed each year by the Safety Department to certify the driver qualification file.

## **DRIVING**

Prior to operating a CMV, the driver shall review the last vehicle inspection report and be satisfied that the vehicle is safe to operate. A pre-trip inspection will disclose unsatisfactory repairs or additional deficiencies. The daily inspections are recorded on form #20411 and required to stay with the vehicle. Each year all CMV's are required to be inspected by a qualified inspector and the proper proof of periodic inspection affixed to the vehicle.

All drivers are required to maintain a record of duty status by either the Official Driver's Daily Log or, if the exemption applies, form #20578. The exemption is defined as:

- a) operating within 115 statute miles, and
- b) returns home within 12 consecutive hours, and
- c) at least 8 consecutive hours off duty separate each 12 hours on duty, and

d) driver does not exceed 10 consecutive hours maximum driving time following 8 hours off duty.

The driver duty status logs are to remain in the possession of the driver. Further clarification can be found in the FMCSR part 395.

Depending on the type of vehicle and/or the load (passenger or hazardous materials), all states have jurisdictional requirements for drivers licensing. For example, a driver may not be required to have a commercial drivers license to operate a commercial motor vehicle. Consult with your supervisor if you have questions.

# **INSPECTIONS FOR TRUCK MOUNTED: DIGGER DERRICKS - CRANES MANLIFTS - MATERIAL HANDLERS**

## **DAILY INSPECTION CHECKLIST:**

1. Engine oil, coolant, washer solvent, and tires.
2. Operation of lights, horn, and safety equipment; including jack pads, fire extinguisher, first aid kit, etc.
3. Parking brake operation.
4. Structural members and welds for visible defects.
5. Loose bolts, cotter keys, hairpins, and safety shields.
6. Hydraulic oil level.
7. Load line, sheaves, and hooks for condition.
8. Oil leaks. Engine and hydraulic.
9. Auger teeth and auger roll-up cable.
10. Fiberglass boom, bucket, and brake.
11. All controls for operation including throttle.
12. During daily operation, note any abnormal sounds and cylinder creep from lift, extension, and outrigger cylinders.
13. Aerial device and vehicle for loose objects (loose objects should be properly stored).
14. Pintel hook, D-rings and electrical socket.

**WEEKLY CHECKLIST:**

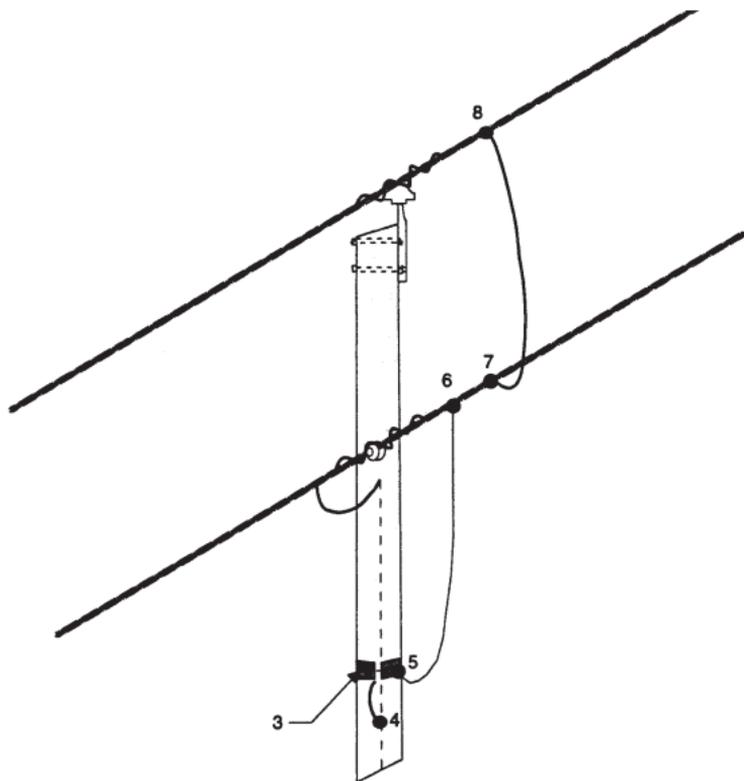
1. Daily checklist.
2. Tire pressure.
3. Lube chart.
4. Hydraulic foot throttle (fluid level).
5. P.T.O. for any slippage of cable adjustment.

**MONTHLY CHECKLIST:**

1. Daily and weekly checklists.
2. Mounting bolts of unit and body.
3. Springs and U-bolts.
4. Hydraulic oil filler cap and screen.
5. Boom angle indicator.
6. Hydraulic hose for excessive wear.
7. Decals for compliance.

# INSTALLING PERSONAL PROTECTIVE GROUNDS (Distribution)

Single phase distribution structure with a neutral:

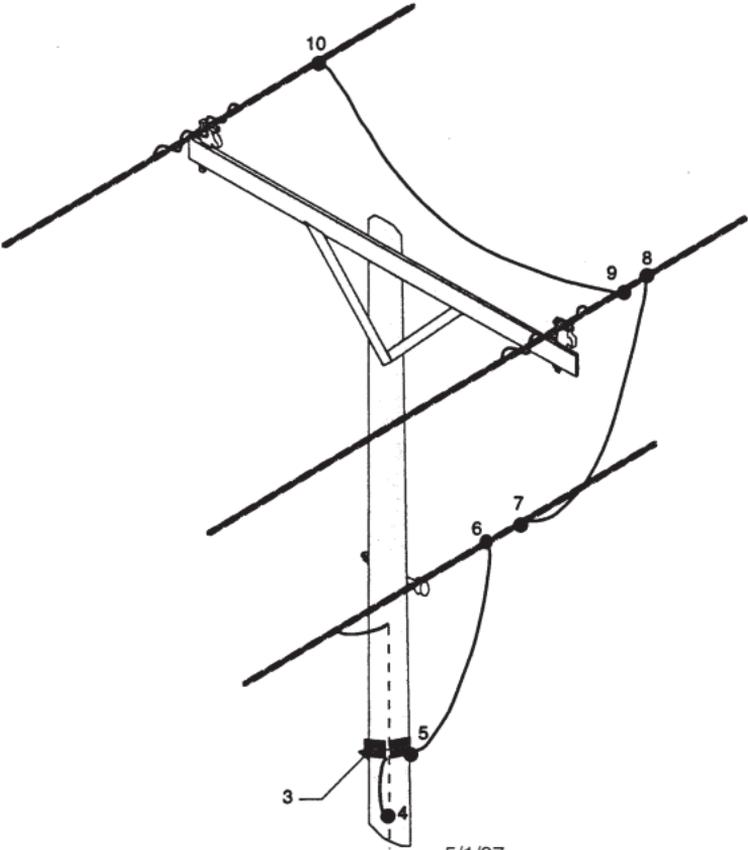


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### **Single phase distribution structure with a neutral:**

1. Inspect personal protective grounds and pole grounds prior to use.
2. Test the line with an approved voltage detection device to verify that the phase is de-energized.
3. Install grounding cluster bar to the pole just below the work site.
4. Connect the grounding cable on the grounding cluster bar to the pole ground wire.
5. Connect one end of a grounding cable to the grounding cluster bar.
6. Connect the other end of the grounding cable to the neutral.
7. Connect one end of a grounding cable to the neutral.
8. Using a hotstick, connect the other end of the grounding cable to the phase.
9. Reverse the procedure to remove the grounds.

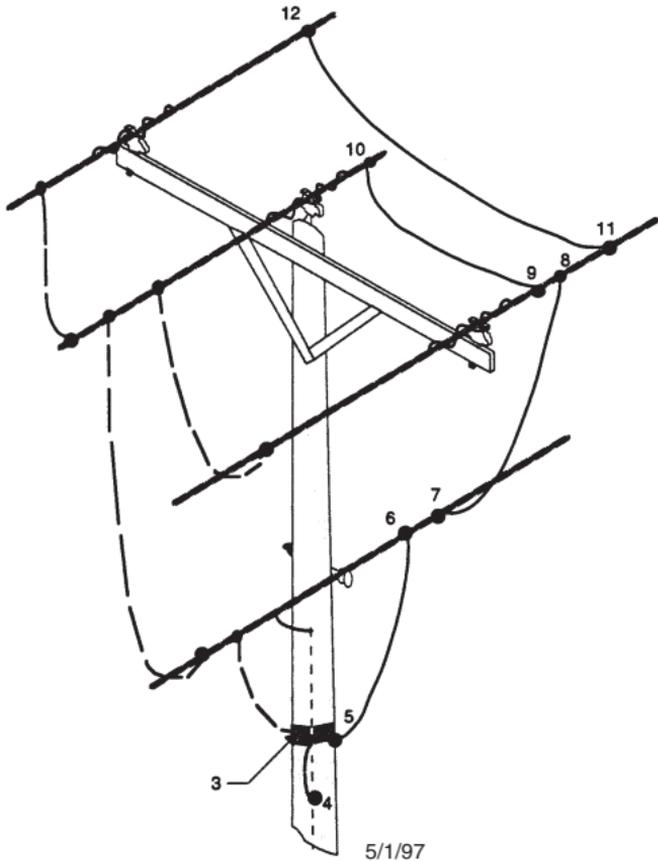
**Two phase distribution structure with a neutral:**



## **Two phase distribution structure with a neutral:**

1. Inspect personal protective grounds and pole grounds prior to use.
2. Test the line with an approved voltage detection device to verify that the phases are de-energized.
3. Install grounding cluster bar to the pole just below the work site.
4. Connect the grounding cable on the grounding cluster bar to the pole ground wire.
5. Connect one end of a grounding cable to the grounding cluster bar.
6. Connect the other end of the grounding cable to the neutral.
7. Connect one end of a grounding cable to the neutral.
8. Using a hotstick, connect the other end of the grounding cable to the nearest outside phase.
9. Using a hotstick, connect one end of a grounding cable to the grounded outside phase.
10. Using a hotstick, connect the other end of the grounding cable to the ungrounded outside phase.
11. Reverse the procedure to remove the grounds.

### Three phase distribution structure with a neutral:



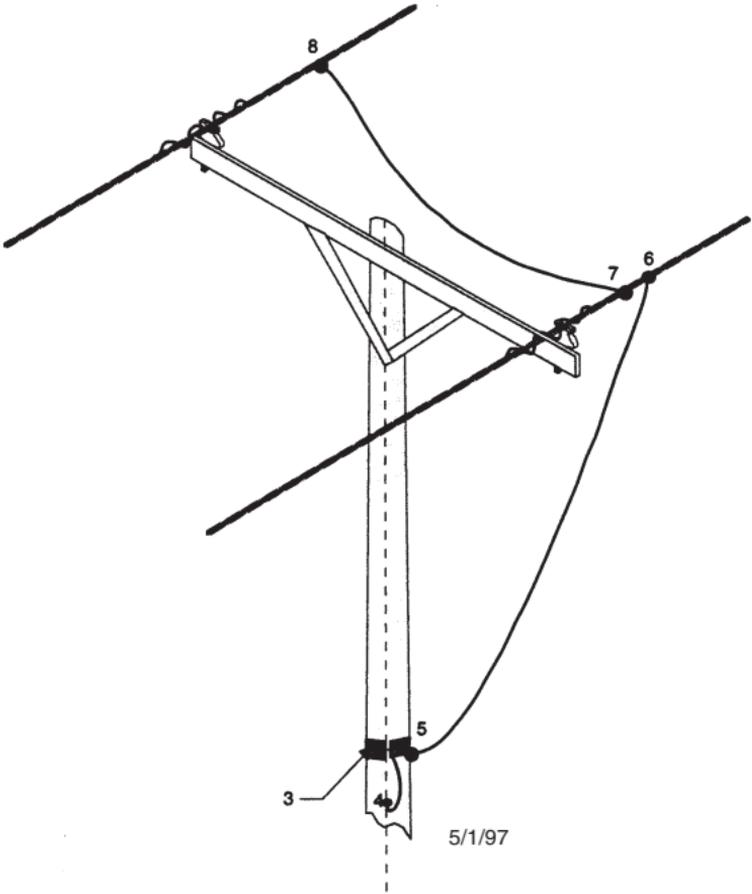
### **Three phase distribution structure with a neutral:**

1. Inspect personal protective grounds and pole grounds prior to use.
2. Test the line with an approved voltage detection device to verify that the phases are de-energized.
3. Install grounding cluster bar to the pole just below the work site.
4. Connect the grounding cable on the grounding cluster bar to the pole ground wire.
5. Connect one end of a grounding cable to the grounding cluster bar.
6. Connect the other end of the grounding cable to the neutral.
7. Connect one end of a grounding cable to the neutral.
8. Using a hotstick, connect the other end of the grounding cable to the nearest outside phase.
9. Using a hotstick, connect one end of a grounding cable to the grounded outside phase.
10. Using a hotstick, connect the other end of the grounding cable to the center phase.
11. Using a hotstick, connect one end of a grounding cable to the grounded outside phase.
12. Using a hotstick, connect the other end of the grounding cable to the ungrounded outside phase.
13. Reverse the procedure to remove the grounds.

#### **Note:**

The dashed lines show an alternate grounding sequence by grounding the center phase first and then the two outside phases grounded from the center phase. This alternate grounding sequence may also be used on other three phase distribution structures.

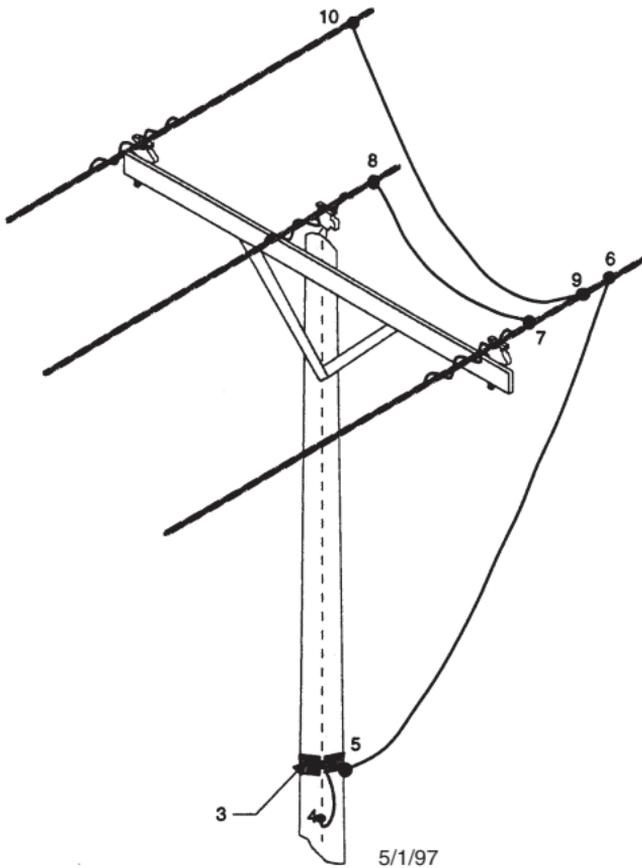
**Single phase distribution structure with a pole ground without a neutral:**



### **Single phase distribution structure with a pole ground without a neutral:**

1. Inspect personal protective grounds and pole grounds prior to use.
2. Test the line with an approved voltage detection device to verify the phases are de-energized.
3. Install grounding cluster bar to the pole just below the work site.
4. Connect the grounding cable on the grounding cluster bar to the pole ground wire.
5. Connect one end of a grounding cable to the grounding cluster bar.
6. Using a hotstick, connect the other end of the grounding cable to the nearest outside phase.
7. Using a hotstick, connect one end of a grounding cable to the grounded outside phase.
8. Using a hotstick, connect the other end of the grounding cable to the ungrounded outside phase.
9. Reverse the procedure to remove the grounds.

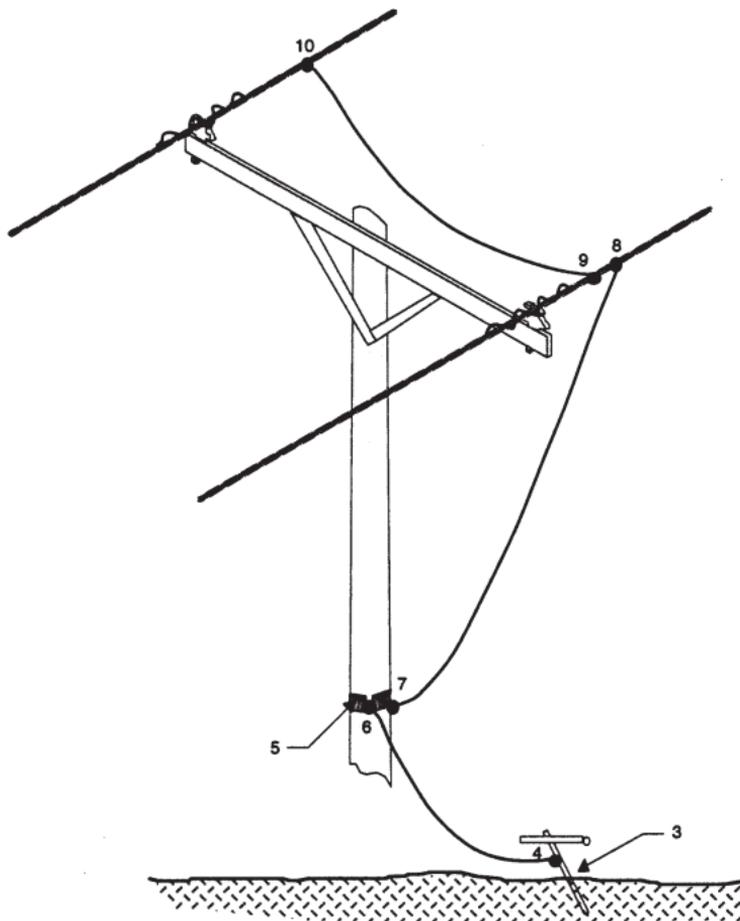
**Three phase distribution structure with a pole ground without a neutral:**



### **Three phase distribution structure with a pole ground without a neutral:**

1. Inspect personal protective grounds and pole grounds prior to use.
2. Test the line with an approved voltage detection device to verify that the phases are de-energized.
3. Install grounding cluster bar to the pole just below the work site.
4. Connect the grounding cable on the grounding cluster bar to the pole ground wire.
5. Connect one end of a grounding cable to the grounding cluster bar.
6. Using a hotstick, connect the other end of the grounding cable to the nearest outside phase.
7. Using a hotstick, connect end of a grounding cable to the grounded outside phase.
8. Using a hotstick, connect the other end of the grounding cable to the center phase.
9. Using a hotstick, connect one end of a grounding cable to the grounded outside phase.
10. Using a hotstick, connect the other end of the grounding cable to the ungrounded outside phase.
11. Reverse the procedure to remove the grounds.

**Single phase distribution structure without pole ground or neutral:**

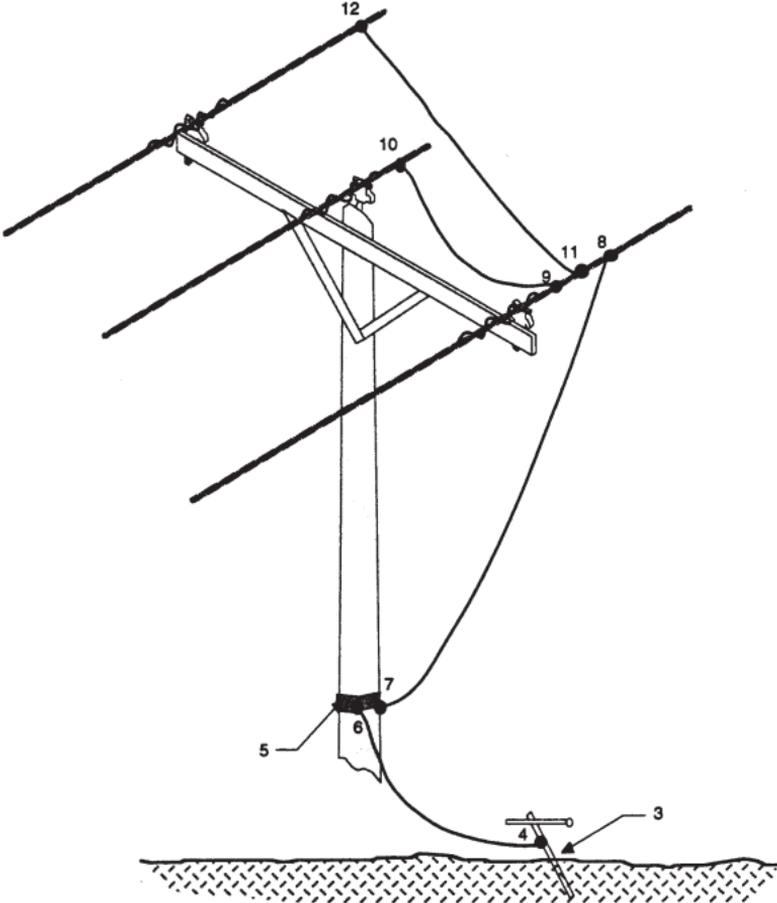


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### **Single phase distribution structure without pole ground or neutral:**

1. Inspect personal protective grounds prior to use.
2. Test the line with an approved voltage detection device, to verify the phase is de-energized.
3. Install temporary ground rod.
4. Connect one end of a grounding cable to the temporary ground rod.
5. Install ground cluster bar to the pole just below the work site.
6. Connect the end of a grounding cable from the temporary ground rod to the grounding cluster bar.
7. Connect one end of a grounding cable to the grounding cluster bar.
8. Using a hotstick, connect the other end of the grounding cable to the nearest outside phase.
9. Using a hotstick, connect one end of a grounding cable to the grounded outside phase.
10. Using a hotstick, connect the other end of the grounding cable to the ungrounded outside phase.
11. Reverse the procedure to remove the grounds.

**Three phase distribution structure without pole ground or neutral:**



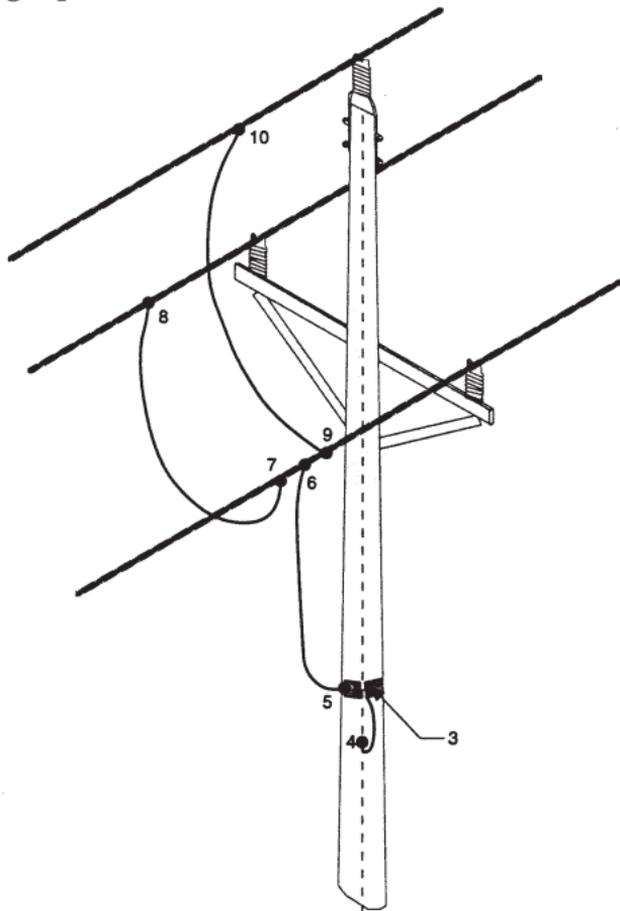
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### **Three phase distribution structure without pole ground or neutral:**

1. Inspect personal protective grounds prior to use.
2. Test the line with an approved voltage detection device to verify that the phases are de-energized.
3. Install temporary ground rod.
4. Connect one end of a ground cable to the temporary ground rod.
5. Install ground cluster bar to the pole just below the work site.
6. Connect the end of the grounding cable from the temporary ground rod to the grounding cluster bar.
7. Connect the end of a grounding cable to the grounding cluster bar.
8. Using a hotstick, connect the other end of the grounding cable to the nearest outside phase.
9. Using a hotstick, connect one end of a grounding cable to the grounded outside phase.
10. Using a hotstick, connect the other end of the grounding cable to the center phase.
11. Using a hotstick, connect one end of a grounding cable to the grounded outside phase.
12. Using a hotstick, connect the other end of the grounding cable to the ungrounded outside phase.
13. Reverse the procedure to remove the grounds.

# INSTALLING PERSONAL PROTECTIVE GROUNDS (Transmission)

Single pole wood transmission structure:

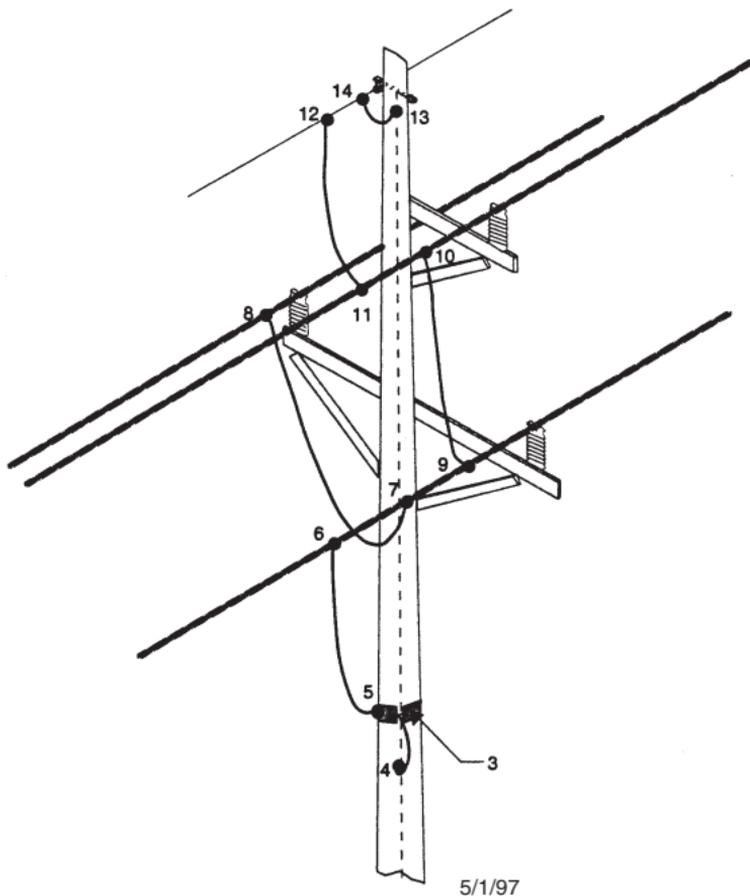


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### **Single pole wood transmission structure:**

1. Inspect personal protective grounds and pole grounds prior to use.
2. Test the line with an approved voltage detection device to verify that the phases are de-energized.
3. Install grounding cluster bar to pole just below the work area.
4. Connect the grounding cable on the grounding cluster bar to the pole ground wire.
5. Connect one end of a grounding cable to the grounding cluster bar.
6. Using a hotstick connect the other end of the grounding cable to the first outside phase.
7. Using a hotstick connect one end of a grounding cable to the first grounded phase.
8. Using a hotstick connect the other end of the grounding cables to the second outside phase.
9. Using a hotstick connect one end of a grounding cable to the first grounded phase.
10. Using a hotstick connect the other end of the grounding cable to the center phase.
11. Reverse the procedure to remove the grounds.

# Single pole wood transmission structure with static wire:

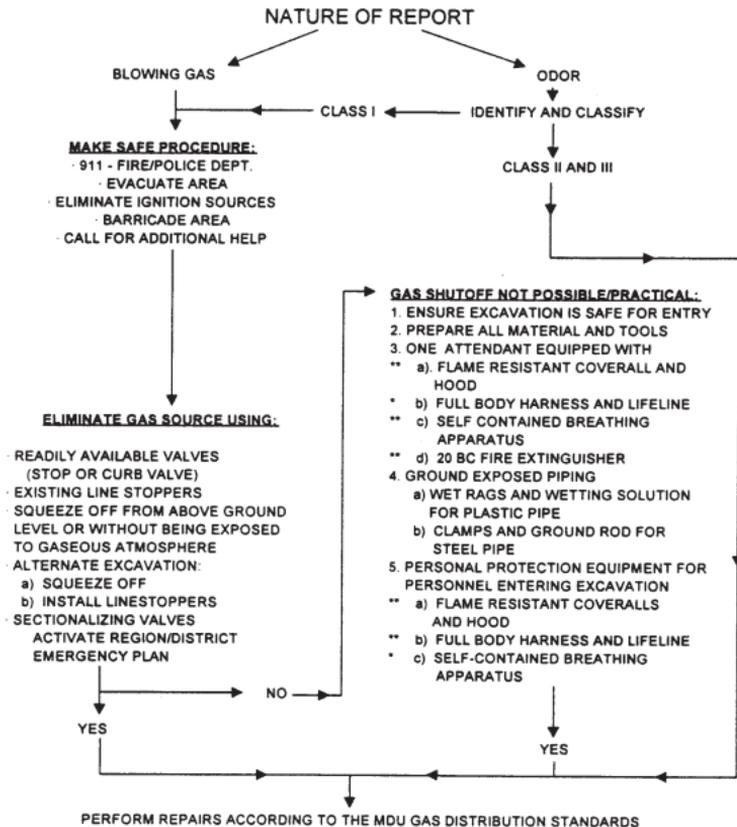


### **Single pole wood transmission structure with static wire:**

1. Inspect personal protective grounds and pole grounds prior to use.
2. Test the line with an approved voltage detection device to verify that the phases are de-energized.
3. Install grounding cluster bar to pole just below the work area.
4. Connect the grounding cable on the grounding cluster bar to the pole ground wire.
5. Connect one end of a grounding cable to the grounding cluster bar.
6. Using a hotstick connect the other end of the grounding cable to the first outside phase.
7. Using a hotstick connect one end of a grounding cable to the first grounded phase.
8. Using a hotstick connect the other end of the grounding cables to the second outside phase.
9. Using a hotstick connect one end of a grounding cable to the first grounded phase.
10. Using a hotstick connect the other end of the grounding cable to the center phase.
11. Using a hotstick connect one end of a grounding cable to the center phase.
12. Using a hotstick connect the other end of the grounding cable to the static wire.
13. Connect one end of a grounding cable to the pole ground wire near the top of the pole.
14. Connect the other end of the grounding cable to the static wire.
15. Reverse the procedure to remove the grounds.

# GAS EMERGENCY RESPONSE FLOW CHART

*REMEMBER!!! SAFETY SHALL NEVER BE SACRIFICED IN FAVOR OF TIME, GAS, OR MONEY*

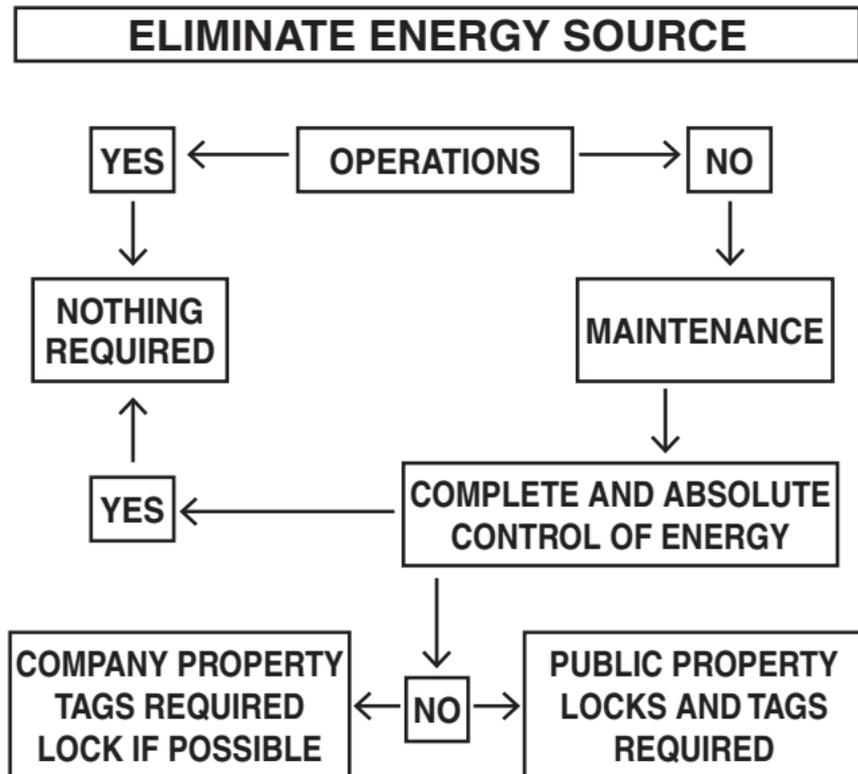


\* TO BE DETERMINED BY RESPONDING EMERGENCY PERSONNEL

\*\* NOT OPTIONAL

For additional information, see CFR 49, Part 192.615.

# LOCK-OUT / TAG-OUT FLOW CHART



# **GAS PIPE ABANDONMENT/ REMOVAL GUIDELINES**

## **Pipe abandoned in place:**

### *Pipe 4 inches or smaller:*

1. Check for liquids every city block or equivalent.
2. Cap and seal if dry.
3. Drain liquids and cap and seal.

### *Pipe larger than 4 inches:*

1. Check for liquids.
2. If wet, drain, collect sample, cap.
3. If dry, wipe test bottom of all ends, cap  
Sample 6" from torch-cut end.  
Sample 1" from mechanically cut end.
4. Final closure method will depend on sample results

## **Pipe removed from ground:**

### *Pipe 4 inches or smaller:*

1. Drain pipe and cap.
2. Notify Compliance Coordinator for sampling after removal.

### *Pipe larger than 4 inches:*

1. Drain and sample liquids.
2. Cut to no more than 40 foot lengths and cap.
3. If dry, cap and notify Compliance Coordinator for sampling.

## **Pipe inserts:**

1. Sample both ends of in-place pipe.
2. Insert can be done before results are available.  
A positive result may require pipe removal

Note: Samples must be analyzed within 14 days.

Any condensate or pipeline liquids spilled should be cleaned as required for untested mineral oil.

## **WILDLIFE PROTECTION**

All migratory birds except house sparrows, starlings, feral pigeon and resident game birds are protected by international treaties and federal law.

Birds, nests, eggs, chicks and carcasses may not be disturbed without federal and state permits.

Contact your supervisor or the Environmental Department prior to moving or handling protected bird species or nuisance nests.

## **TRANSFORMER OIL SPILL CLEANUP GUIDELINES**

Contact the Environmental Department about:

- Any spills to water, sewers, gardens, or grazing lands;
- A spill that contaminates vehicles or residential areas;
- A spill that is larger than 25 gallons.

### **Less than 50 ppm PCB:**

Drum oil stained soil and cleanup equipment.

### **Untested oil or oil $\geq 50$ ppm $< 500$ ppm involving less than 270 gallons:**

*Non-porous surfaces:*

Cleanup must be complete within 48 hours.

1. Remove visible oil.

2. For clean surface:

Cover surface with solvent and scrub for one minute.

Rinse and let rinse solvent stay on one minute. Wipe.

Repeat wash/rinse cycle.

3. If surface is dirty:  
Cover surface with detergent and scrub one minute. Wipe.  
Proceed as above.
4. Capture all solvent and rinsate for disposal.

*Porous surfaces:*

1. Clean as above.
2. Allow to dry 24 hours.
3. Paint with two contrasting colors of solvent and water repellent paint OR
3. Fasten barrier to surface.
4. Mark with PCB mark
5. Porous material must be disposed as PCB waste when removed.

*Soil:*

1. Excavate all stained soil and a 1 lateral foot buffer.
2. If spill boundaries unclear, contact Environmental Department.

**Oil  $\geq$  500 ppm PCB or  $>270$ m gallons of untested or  $\geq 50$  and  $<500$  ppm oil:**

Within 24 hours:

1. Notify supervisor and Environmental Department.
2. Restrict access to spill area plus 3-foot buffer.
3. Document area of visible contamination.
4. Initiate cleanup.

*Post-cleanup sampling may be required. Contact Environmental Department.*

## **CORPS OF ENGINEERS PERMITS**

A permit is required for activities in or near rivers, streams, wetlands, lakes and other significant bodies of water. Regulated activities include stream crossings for gas and electric lines, bank stabilization and construction.

Contact the Environmental Department for assistance in obtaining permits.

## **HAZARDOUS MATERIAL TRANSPORTATION**

Hazardous materials carried on a motor vehicle for the purpose of protecting the health and safety of the driver, for the maintenance of the motor vehicle or in direct support of a principal business are considered Materials of Trade (MOT).

*Materials of trade must be:*

1. Carried in leak tight containers, secured against movement.
2. In original packaging or equivalent.
3. Marked with common name.
4. Cylinders must be properly marked and labeled.
5. Marked as an "RQ" if a reportable quantity is present.
6. Gasoline must be carried in OSHA approved containers of less than 8 gallons.

The gross weight of all materials of trade on a truck must not exceed 440 pounds.

Up to 400 gallons of mineral oil with a maximum concentration of 20,000 ppm PCB may be carried as a MOT, and is not subject to the 440 lb maximum.

An "RQ" of PCB is present in a 55 gallon drum if the oil concentration is 2400 ppm or greater.

## COMMUNICATION ANTENNAS

These pictures are examples of common antennas installed throughout our service territory. Although many are safely located on tower structures, some are being installed on building rooftops. Use caution when working around communication antennas to minimize your exposure to radiofrequency radiation. If you have questions or concerns contact the General Office Safety or Communications Dept.





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A-58



A-59

## NOTES

Response No. PSC-118  
Attachment B

Response No. PSC-118  
Attachment B

# LABOR AGREEMENT

BETWEEN

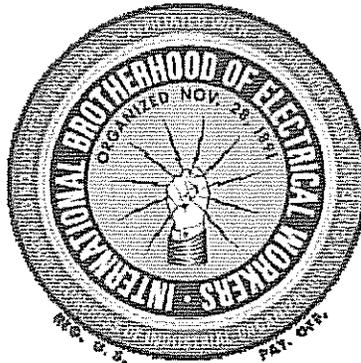


**MONTANA-DAKOTA**  
**UTILITIES CO.**

*A Division of MDU Resources Group, Inc.*

AND

**SYSTEM COUNCIL U-13**  
of the  
**INTERNATIONAL BROTHERHOOD  
OF ELECTRICAL WORKERS**



**Effective May 13, 2011**  
**Through April 30, 2015**

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## **Article 1**

### **AGREEMENT**

THIS AGREEMENT, made and entered into by and between Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., a corporation with principal offices at 400 North Fourth Street, Bismarck, North Dakota, hereinafter referred to as the Company and System Council U-13 representing Local Unions No. 395 (Dickinson, North Dakota), 423 (Mobridge, South Dakota), 532 (Billings, Montana), 653 (Miles City, Montana), 758 (Wolf Point, Montana), 958 (Baker, Montana), 971 (Williston, North Dakota), 975 (Bismarck, North Dakota), 988 (Sidney, Montana), 1050 (Glendive, Montana), 1532 (Minot/Devils Lake, North Dakota), and 1616 (Rapid City, South Dakota) of the International Brotherhood of Electrical Workers, affiliated with the AFL-CIO hereinafter collectively referred to as the Union or System Council. This agreement shall be binding upon the parties and their respective successors and assigns.

### **WITNESSETH**

For the purpose of facilitating the peaceful adjustment of differences which may arise from time to time and of promoting harmony and efficiency to the end that the Company, the Union, and the general public may mutually benefit, the parties hereto contract and agree with each other as follows, the agreements and covenants of each being in consideration of the agreements and covenants to be kept and performed by the other.

## **Article 2**

### **UNION RECOGNITION**

**Section 1** The Company agrees to negotiate and bargain exclusively with the Union through its duly accredited

officers and representatives in respect to rates of pay, wages, hours of employment, and other conditions of employment included within the application and interpretation of this agreement affecting said employees for all regular employees covered by this agreement (*exclusive of office, clerical, supervisory, and managerial employees*) as shown by job titles in Exhibit A, attached hereto and made a part hereof, in the Badlands, Black Hills, Dakota Heartland, and Rocky Mountain Regions, General Office Group, and the Electric Power Production Division.

**Section 2** The Company recognizes the System Council U-13 and its representative as the agent of Local Unions 395, 423, 532, 653, 758, 958, 971, 975, 988, 1050, 1532, and 1616 of the IBEW on all matters the Council may present to the Company.

**Section 3** The term “*employee*” as used in this Agreement shall mean employees covered by this Agreement and for whom the Union is the recognized collective bargaining representative.

**Section 4** Wherever the word “*man*” or “*men*” is referred to in this Agreement or as a suffix to a job classification in schedule A, the meaning shall include both male and female employees.

### **Article 3**

## **MANAGEMENT RIGHTS**

**Section 1** It is agreed that the Management of the business and the direction of the working force of the Company shall be within the sole control of the Company, including the right to hire, promote, transfer, discipline, suspend, discharge for cause, and to lay off employees because of lack of work in compliance with terms of this Agreement. The Company shall also determine the

numbers and kinds of employees required at any particular time or place, the methods and equipment to be used, and the work assignments and tours of duty. Nothing in this Article is intended nor shall be construed as authorizing violation of this Agreement or of depriving the Union or any employee of any rights granted hereunder or determined by Law.

**Article 4**  
**COMPANY, UNION AND**  
**EMPLOYEE COOPERATION**

**Section 1** The Union agrees to do its utmost to see that its members perform their assigned duties in the Company safely, loyally, efficiently and continuously under the terms of this Agreement. The Union and its members will use their best efforts to protect the interests of the Company, to protect its property, and to give service of the highest productive quality.

**Section 2** Neither the Union, its agents, nor any of its members shall solicit employees for Union membership, collect dues or engage in other Union activities on Company time, unless specifically authorized in advance by an immediate supervisor on the day the employee engages in such activities.

**Section 3** The Union agrees that their members will not carry on any Union activities during working hours except attending meetings regarding grievances. It is agreed that meetings with their immediate supervisor to settle grievances, if held during scheduled working hours, will not result in a reduction of pay for those aggrieved employees and shop steward involved through the second step of the grievance procedure only.

**Section 4** It is agreed that there will be no discrimination, interference, restraint or coercion by the Company or any of its agents against any bargaining unit employee because of any lawful activities on behalf of the Union, or because of membership in the Union; and the Union, its members and agents, shall not discriminate, interfere with, or coerce employees into membership in the Union in an unlawful manner.

**Section 5** It is agreed there shall be no discrimination because of Union membership, or non-membership, sex, race, color, religion, national origin, disabled and Vietnam era veterans, handicap, and age; and it is further agreed that all employees shall work in an environment free from all forms of violence, threats of violence, discrimination, and harassment. Any verbal or physical violence, threats of violence, discrimination, or harassment shall be cause for disciplinary action up to and including termination of employment.

**Section 6 (Access to Property)** The Company agrees that during the life of this Agreement, Union Officials shall have access to the Company's properties for the purposes of observation, discussion when a dispute is involved, safety, and other matters to promote efficiency and harmony between the Company and the Union. When possible, Union representatives shall notify Company supervisors in charge when arriving on Company property.

**Section 7** The Company recognizes the right of the Union to designate Stewards and the Union agrees to furnish the region or plant manager for whom the employee works the name of the individuals so designated. It is further agreed that such stewards shall be employees of the Company and

have no authority to take action contrary to the terms of this Agreement.

**Section 8 (a)** During the term of this Agreement, the Company agrees it shall not contract out generation, transmission or distribution work which would or will cause the layoff of any regular employees who would normally do such work in the region, plant, or general office group where the work was performed. In the event the Company does contract generation, transmission or distribution work it agrees to post on the hiring region, plant, or general office group's bulletin board, information as to the location in which the work is to be done, name of the contractor, the scope of the work to be done, and to notify the contractor they will be expected to conduct the work in such manner as not to interfere with the working relationship between the Company and the Union.

(b) It is the intention of the Company to pursue meter reading opportunities with other companies and/or municipalities to reduce the overall cost of meter reading and to create future business opportunities. The Company must also explore efficiencies in locating. As a result the Company may find it economically advantageous to contract such work and the Company may, at its discretion, decide to expand or reduce this work. Employees affected by such Company decision shall have the opportunity to exercise all seniority rights as set forth in Art. 24. In addition, the Company shall give the union and the affected employees 30 days notice of such reductions.

## **Article 5**

### **EMPLOYEES – DEFINED**

**Section 1** Employees shall be known as regular, probationary, regular part-time meter reader, or temporary.

**Section 2** *Regular employees.* Those employees who have served their six (6) months probationary period with the Company and are employed for the regular conduct of the Company's business, working on operations, maintenance and routine construction.

**Section 3** (a) A "*probationary employee*" is a person who has been hired by the Company to fill a vacated or newly established regular position in the Company and has not yet completed six (6) months of continuous employment with the Company. On a case by case basis, with mutual written agreement between the Company, the Union and the employee involved, the probationary period may be extended beyond six (6) months. The retention of a probationary employee is at the sole discretion of the Company, and termination of employment of such employee at any time prior to satisfactory completion of his/her probationary period shall not be subject to review through the grievance or arbitration procedure of this Agreement.

(b) The probationary period shall only include calendar months during which the employee worked at least twelve (12) days.

**Section 4** A "*temporary employee*" is one who is engaged for a limited period with the definite understanding that his/her employment is to terminate at the end of the period, and whose employment is expected to continue for not more than six (6) months. Temporary employees shall have no rights or privileges under the terms of this Agreement; except as provided herein. Qualified temporary employees shall not be assigned to perform work above the entry level where qualified regular employees are available. Temporary employees shall not be employed

in a classification if a job opening exists for a regular employee except for a period of thirty (30) days during the job bidding and hiring procedure; with work rules and scheduling provisions of this Agreement applying to such employees. Temporary employees assigned to classified work covered by this Agreement shall not receive less than the lowest applicable rate listed in Exhibit A.

**Section 5** *Regular part-time meter reader* benefits are provided as outlined in company policy HR-709 based on their annual hours worked. Seniority will be based on hours accumulation, i.e., 2080 hours equals one year's service. The hourly rate of pay shall be as set forth in Exhibit A and progression shall be based on 1,000 paid hour steps rather than six months time in steps. The intent of this section is not to replace or displace jobs for regular employees.

**Section 6** When an employee becomes a regular employee, seniority shall begin with the date upon which his/her continuous employment started.

**Section 7** The Company agrees to make available to the Union, upon request, information regarding employment date, status, classification, and rate of pay for all employees covered under this Agreement.

## **Article 6**

### **WAGE RATES**

**Section 1** The job classification and rates of pay which shall prevail during the term of this Agreement are set forth and contained in the Schedules of Classifications and Rates as Exhibit A, attached hereto, and considered in all respects to be part of this Agreement.

**Section 2** The Company shall have the right to create new classifications from time to time as the Company determines to be desirable or necessary. When the Company desires to create a new classification within the bargaining unit, the Company will notify the Union and enter into negotiations relative to the new classification and wage rate or range of rates. When the new classification or range of rates has been agreed upon, the agreement shall be reduced to written form, signed by the parties hereto and made a part hereof as an amendment to this Agreement. Thereafter the new classification shall be considered a part of Exhibit A hereof.

Pending a completion of negotiations with respect to such wage rate or ranges of rates, the Company shall set a temporary rate and establish temporary working conditions.

When the Company and the Union reach agreement on the new wage rate or ranges of rates for the new classification, it shall be retroactive to the date when the classification was first temporarily established.

If unable to reach agreement on a new classification and/or wage rate, and with mutual agreement by both parties, this matter shall be referred to arbitration as provided for in Article 30.

**Section 3** All employees shall be paid biweekly with pay days to occur every other Friday. For holidays observed on a Friday, the immediately preceding Thursday shall be payday.

**Section 4** It is hereby agreed that no employee or group of employees shall suffer any reduction in wage rates or be otherwise unfavorably affected by the adoption of this Agreement.

## **Article 7**

### **WAGE SCHEDULES**

**Section 1** Classification of employees, wage scales and conditions of employment in the various departments of the Company covered by this Agreement are attached hereto under Exhibit A and are made a part of this Agreement.

**Section 2** The classification of employees covered by this Agreement listed in Exhibit A represent the normal complement of employees in the various regions, general office group, power plants, and departments of the Company. It is understood and agreed, however, that the Company shall be under no obligation to fill or maintain all classifications listed.

#### **Section 3**

- (a) Regular employees who have worked fourteen (14) hours or more in any twenty-four hour period will be released from work and be entitled to an eight (8) hour rest period without loss of pay for any rest hours occurring during regular scheduled hours of work.
  - 1. Employees who are required to work 14 hours or more in any 24 hour period for two or more consecutive days will be entitled to a ten (10) hour rest period. The ten (10) hour rest period will continue until employee works less than 14 hours in any 24 hour period at which point the rest period will revert to an eight (8) hour rest period and reset the consecutive day clock.
- (b) If an employee cannot be released after working fourteen (14) hours in any twenty-four (24) hour period, the employee shall receive double his/her straight time rate until released for an eight (8) hour rest period.

- (c) Shift workers working fourteen (14) hours or more in any twenty-four hour period shall receive double their straight time rate until released for an eight (8) hour rest period; except shift workers working scheduled shifts over sixteen (16) hours in any twenty-four (24) hour period shall receive double their straight time rate until released for an eight (8) hour rest period.
- (d) Once an employee receives the eight (8) hour rest period referenced in subsections (a), (b), or (c) above, the twenty-four (24) hour period will restart.

**Section 4** An employee doing work under any other than the employee's regular classification for three (3) hours or more in any regular scheduled day, shall receive the scale of wages for that classification for all scheduled hours worked during that regular scheduled day, unless the scale for such classification is lower than the scale regularly paid such employee. Overtime hours worked outside the regular scheduled hours will be paid at the appropriate overtime rate for the work being performed, unless the rate is lower than the rate regularly paid such employee.

**Section 5** Unless the Company and System Council mutually agree otherwise, all regular employees are to receive full time employment, provided they are ready and in condition to perform their work in accordance with the terms and conditions of this Agreement. This is not intended to mean that the Company shall not have the right to lay off regular employees on account of the needs of the service (subject to Article 24, Section 4), it being agreed that such employees are subject to being laid off in accordance with Article 24. Two weeks written notice of layoffs shall be given regular employees.

**Section 6** The Company and the Union agree that there is a Joint Apprenticeship and Training Committee. The function of the Committee shall be to establish the requirements for the training of all apprentices.

**Section 7** Apprentices, when employed in preparation for any of the classifications indicated by an asterisk listed in Exhibit A, shall be paid according to the following schedule, except that in no case shall an apprentice be paid a lesser hourly rate than that applicable to laborer.

<b><u>2 Year</u></b>		<b><u>3 Year</u></b>	
1 <sup>st</sup> 6 months .....	70%	1 <sup>st</sup> year .....	75%
2 <sup>nd</sup> 6 months.....	75%	3 <sup>rd</sup> 6 months .....	80%
3 <sup>rd</sup> 6 months .....	80%	4 <sup>th</sup> 6 months .....	85%
4 <sup>th</sup> 6 months .....	90%	5 <sup>th</sup> 6 months .....	90%
Journeyman .....	100%	6 <sup>th</sup> 6 months .....	95%
		Journeyman .....	100%
<b><u>4 Year</u></b>		<b><u>6 Year</u></b>	
1 <sup>st</sup> year .....	70%	1 <sup>st</sup> year .....	70%
2 <sup>nd</sup> year .....	75%	2 <sup>nd</sup> year .....	75%
3 <sup>rd</sup> year.....	80%	3 <sup>rd</sup> year.....	80%
4 <sup>th</sup> year.....	90%	4 <sup>th</sup> year.....	85%
Journeyman .....	100%	5 <sup>th</sup> year.....	90%
		6 <sup>th</sup> year.....	95%
		Journeyman .....	100%

**Section 8** From and after the effective date of this Agreement, the Company shall have the right to add a trainee in any town outside of the region headquarters to work under a journey level service technician or district representative. It is further agreed that such trainee should progress to 90% of the journey level service technician's rate and remain at such rate until there is an opening as a journey level service technician or district representative.

In no case shall there be more than one trainee in a district or territory handled by a journey level service technician or district representative. This section shall cover only employees hired for this specific purpose.

**Section 9** Nothing in this Agreement shall prevent the Company from paying more than the rate shown herein to any employee for recognition of individual merit or special circumstances without establishing any precedent. Any such rates now being paid in any classification above the general wage schedules are recognized as individual rates and new employees will be started at the rates shown herein for their classification in the region, general office group, power plant or department in which they are employed.

**Section 10** Any employee who works at a higher classification other than his/her own for more than 50% of the time in any twelve (12) consecutive month period will be reclassified at the higher classification. Such higher job classification need not be posted. The time an employee spends working in a higher classification as a result of filling in for an employee on a leave of absence associated with military leave, jury duty, illness, injury, or other reasons for which the employee is expected to return will not apply. An employee upgraded to a higher classification while on a specific project will be reclassified to their original classification when the project is completed.

## **Article 8**

### **HOURS OF WORK**

**Section 1** Eight (8) hours work, between the hours of 7:00 a.m. and 5:00 p.m. with not more than one regularly scheduled hour for lunch period, shall constitute a normal workday for all regular employees, except as otherwise provided in this Agreement. The regularly scheduled

lunch period may be shifted providing there is a mutual agreement to do so, the request is reasonable, and presents no inconvenience for the employees involved. For the service department, the lunch period will fall between 11:30 a.m. and 1:30 p.m. depending upon the need to efficiently handle service calls.

**Section 2** Forty (40) hours within five (5) consecutive days, Monday through Saturday, shall constitute a regular work week for all regular employees, except as otherwise provided in this Agreement.

**Section 3** The normal work day for all regular employees covered by this Agreement in the service departments is as outlined in Section 1 above, except the Company reserves the right to alter the work day and work week, in the service departments, to any eight (8) consecutive hours per day (lunch time excluded) and any five (5) consecutive days per week (Sunday excluded) to meet the needs of the service.

**Section 4** Any change in the regular work week shall be scheduled and posted five (5) days in advance and shall be for a minimum of five (5) days duration; except that only twenty-four (24) hours notice shall be required in changing the regular scheduled hours of work for shift workers in power plants at those times when the need occurs to start up or shut down such plants on short notice due to conditions that cannot be reasonably anticipated. During periods of reserve shutdowns at power plants, the Company, with 24 hours notice, may give the employee the holiday off. It is further agreed that only 24 hours notice is required where the change in the hours of work in these plants is due to illness, personal leave holiday or a bereavement leave. It is also agreed that a significant change in the regular work

schedules shall be discussed with the local union business manager, or his/her designee, and the employees affected; and so far as possible the desires of the employees shall be considered.

**Section 5** The electric line crews regular work week shall be Monday through Friday. The parties to this Agreement acknowledge that if the employees and management agree, the regular work week for electric linecrews may be waived through mutual agreement.

**Section 6** The regular work period for employees engaged in performing the classification of work where attendance is required twenty-four (24) hours per day and seven (7) days per week shall be eight (8) consecutive hours per day and five (5) or more consecutive days, Sunday and holidays included.

**Section 7** A shift worker is an employee who is normally required to work on jobs which are operated two or three consecutive eight (8) hour shifts per day or one shift per day, seven (7) days per week, throughout the year.

## **Article 9**

### **OVERTIME COMPENSATION**

**Section 1** Overtime at the rate of one and one-half times the employee's straight time rate shall be paid as follows:

(a) For all hours compensated for in excess of eight (8) hours per day.

(b) For all hours compensated for in excess of forty (40) hours per week.

(c) For all hours worked on an employee's assigned day off.

(d) For all hours worked outside of scheduled hours.

**Section 2** Overtime at the rate of two times the employee's straight time rate shall be paid as follows:

(a) For all hours worked on Sunday, except for regularly scheduled shift workers when their regular shift falls on Sunday.

(b) Shift worker Sunday is defined as second day of 2-day break while the middle two days of a 4-day break will be designated as Sundays. On 3-day breaks the middle day will be designated the Sunday.

### **Section 3**

(a) Employees required to immediately report to work at irregular hours shall be allowed overtime, the time being computed from the time they are called, and in addition to the time actually worked, shall be allowed such additional time as may be required to return to the place from which they were called. The employee called shall be allowed a minimum of one (1) hour at the overtime rate. If the time worked is in excess of one hour then they shall be compensated for the additional time worked at the overtime rate, computed to the nearest fifteen (15) minutes.

(b) Employees working assignments not continuous with their regular work day, shall be allowed a minimum of one (1) hour at the overtime rate. Such assignments exclude travel time when given a minimum of one hour advance notice. If the time worked is in excess of one hour then they shall be compensated for the additional time worked at the overtime rate, computed to the nearest fifteen (15) minutes.

**Section 4** No employee shall be laid off to compensate for overtime that has been worked or is to be worked.

**Section 5 (a)** Scheduled overtime is to be distributed as is practicable over the course of a calendar year, except in an emergency, among the employees employed in the classification of work where such overtime is worked or is to be worked. Information on such scheduled overtime hours will be provided to any representative of the Union upon request.

(b) Emergency overtime shifts, within the operation line of progression in a power plant, may be filled using any qualified employee from any classification within such line of progression.

(c) Emergency overtime is defined as overtime that occurs with less than twenty-four (24) hours notice.

## **Article 10 HOLIDAYS**

**Section 1** Based on the needs of the service, employees shall not work on holidays. The number and choice of regular employees required to work on the holiday shall be determined by the Company.

**Section 2** Holidays under this Agreement shall be New Year's Day, Presidents Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, the day after Thanksgiving Day, Christmas Day, and three personal leave holidays; all three personal leave holidays subject to Section 3(b), (c), (d), and (e) of this Article.

### **Section 3**

(a) If a holiday occurs on a Saturday, the preceding Friday shall be designated as the holiday and the Saturday shall be treated and paid for as any other Saturday. If a holiday occurs on a Sunday, the following Monday shall be designated as the holiday and the Sunday shall be treated and paid for as any other Sunday.

(b) Personal leave holidays may be taken on any scheduled work day during the calendar year at the convenience of the Company and the employee. Employees shall not be denied their preference without good and sufficient reason.

(c) An employee hired during the first quarter of a calendar year shall be entitled to two (2) personal leave days during the year of hire upon completion of the probationary period; an employee hired during the second quarter of a calendar year shall be entitled to one (1) personal leave day during the year of hire upon completion of the probationary period; an employee hired during the third and fourth quarter of a calendar year will not be entitled to a personal leave day during the year of hire, but will be entitled to three (3) personal leave days in the subsequent year upon completion of the probationary period.

(d) Unused personal leave holidays shall not be paid upon termination of employment.

(e) Unused personal leave holidays may be converted to vacation at the end of the year subject to the 2 times cap limit under Article 11, Section 3.

**Section 4** All regular employees covered by this Agreement shall receive compensation for each holiday

as outlined in Section 2 above, whether it falls on one of their scheduled work days or on one of their regular days off, at their regular straight time rate as “unworked holiday pay.” Credit for holidays is not earned during temporary employment status, nor is the benefit retroactively credited should employment status change from temporary to regular.

**Section 5** A shift worker’s holiday shall not be moved as described in Section 3(a) of this Article. Any shift worker covered by this Agreement who actually performs work during his/her regularly scheduled hours on a holiday shall be paid for the holiday plus one and one-half times his/her straight time rate of pay for all hours worked. If work is performed outside of the employee’s regularly scheduled work hours, the employee shall be paid double his/her straight time rate of pay. Any other employee who is called out to work on a holiday, as herein designated shall be paid double his/her straight time rate of pay plus holiday pay.

**Section 6** If a holiday falls during an employee’s vacation period, the holiday will be paid as a holiday, thereby preserving a day’s vacation. If the employee chooses and the Company agrees, the employee may receive vacation pay for the day, as well as holiday pay, thereby expending a day’s vacation.

**Section 7** Lead Yard Operators, Yard Operators and Yardpersons (classified as shift workers) shall observe holidays in accordance with Section 3(a) of this Article.

## **Article 11 VACATION**

**Section 1** Vacation will be earned by employees on a pay period basis and will be posted on the pay stub for

each period. Accrual will be on regular hours compensated assuming 2080 hours per year. Accrual will not occur when an employee is off without pay. When taken, vacation shall be paid at the employee's regular straight time hourly rate of pay. The rate at which vacation is earned will be based on the employee's anniversary date according to the following schedule:

(a) An employee with less than 7 years service completed will earn vacation at a rate of 88 hours per year.

(b) An employee who has completed 7 years service will earn vacation at a rate of 128 hours per year.

(c) An employee who has completed 14 years service will earn vacation at a rate of 168 hours per year.

(d) An employee who has completed 25 years service will earn vacation at a rate of 208 hours per year.

**Section 2** Employees who have had a break in service will, upon completion of one year of regular employment on a rehire, be given credit for their prior time of regular employment for the purpose of setting an adjusted anniversary date. For accrual purposes, during their first year of rehire they will accrue at the 88 hour per year rate. Accrual of vacation benefits is not earned during temporary employment status, nor is the benefit retroactively credited should employment status change from temporary to regular. Credit for future accrual rates as shown in Article 11, Section 1, above will not be given for temporary employment unless it is continuous with regular employment.

**Section 3** An employee may accumulate vacation up to an amount equal to two times the annual rate at which it is being earned. For example, an employee who has

completed 7 years of service and is earning vacation at the rate of 128 hours per year will be able to accumulate up to 256 hours of vacation. Any vacation earned in excess of 256 hours would not be added to the employee's total amount available. It would be lost.

**Section 4** Vacations may be scheduled throughout the calendar year unless indicated otherwise and, insofar as the requirements of the service will permit, schedules will be prepared in such manner as to permit a maximum number of vacations during the most desirable vacation season. There must be a good reason why an employee cannot take vacation when desired. Requests for scheduled vacation periods will be taken during January and February. In order to help resolve conflicts an employee can designate a block (up to three weeks) of vacation as preferred. Preferred vacation is top priority. Determination of which preferred requests can be honored will be made, based on the company seniority, by March 15 of each year. As an exception, in power plants, classification seniority may be used at the option of the local. Once scheduled the preferred vacation periods are guaranteed. Vacation that is requested by the end of February but not designated as preferred will be second priority. It will be scheduled according to the same seniority rules and will be given priority over non-scheduled vacation. No more than one (1) block of vacation shall be designated as second priority. Vacation not scheduled will be granted on a first come first serve basis without regard to seniority. For shift workers at least seven days notice will be required to schedule vacation.

**Section 5** Employees shall not be called back while on vacation except during an extreme emergency. In the event an employee is recalled from vacation, they shall be paid

at the appropriate overtime rate for all vacation hours worked. Vacation hours worked will be rescheduled by the employee as the requirements of the service will permit. Vacation time shall be from quitting time on the day before the start of vacation until the normal starting time on the day of return from vacation.

**Section 6** Upon termination of employment for any reason, an employee shall be paid for earned vacation time.

**Section 7** In the event a regular employee is a victim of a serious illness or accident immediately prior to the employee's scheduled vacation and has not returned to work, the regular employee may postpone his/her vacation. Vacations thus postponed shall be re-scheduled for a later date so as not to interfere with scheduled vacations of other regular employees. In no case will the maximums described in Section 3 be exceeded.

## **Article 12**

### **BEREAVEMENT LEAVE**

**Section 1** If a death occurs in a regular employee's immediate family, the employee shall be allowed four (4) consecutive work days off from regularly scheduled duty with pay. Immediate family shall be defined as the wife, husband, son, daughter, father, or mother of the employee.

**Section 2** Regular employees shall be allowed three (3) consecutive work days off from regularly scheduled duty with pay in the event of the death of the employee's father-in-law, mother-in-law, brother, sister, stepfather, stepmother, stepson, or stepdaughter.

**Section 3** Regular employees shall be allowed one (1) day off from regular scheduled duty with pay in the event

of the death of the employee's brother-in-law, sister-in-law, son-in-law, daughter-in-law, stepbrother, stepsister, grandparent or grandchild.

**Section 4** If the funeral is on a regularly scheduled work day, it will count as one day of the bereavement leave. If the funeral is not on a regularly scheduled work day, then the day(s) off will be immediately before and/or after the funeral day.

**Section 5** Any regular employee covered by this Agreement may be allowed the amount of time necessary, up to four (4) hours, off from duty with regular pay to attend the funeral of a fellow regular employee or retiree of the Company, provided such absence from duty will not interfere with normal operations of the Company.

**Section 6** To be eligible for pay under this article, the employee must attend the funeral of the deceased. Time off under this article shall not count against vacation or personal leave days. Employees requesting bereavement leave shall give the Company as much notice as possible.

## **Article 13**

### **SICK LEAVE**

**Section 1** For the period of this contract, sick leave benefits shall continue in effect in the same manner as was practiced by the Company during the past year.

**Section 2** It is recognized by the Union that there is no written sick leave program in existence; however, administrative instructions for sick leave payments are covered in the attached Memorandum of Agreement.

**Section 3** The payment of sick leave benefits is only to be made when an employee cannot work because of illness

or injury. Such payment is to be in lieu of an employee's regular wages and under no condition is to be in addition to the employee's regular pay.

## **Article 14**

### **MILITARY LEAVE**

**Section 1** If an employee is a member of the National Guard or is on the reserve list of a branch of the Armed Services of the United States and because of such membership or presence on the reserve list is required to attend a training camp or deal with civil emergencies, the employee shall be given a leave of absence for such purpose.

**Section 2** In addition to the Military leave set forth above, the employee shall receive vacation to which the employee is entitled.

If an employee wishes, the employee may elect to have his/her vacation and Military Leave of absence run concurrently. The election to have vacation and Military Leave run concurrently must be made, in writing, in advance of the leave of absence.

**Section 3** As soon as an employee receives notice or has knowledge of a required training period, the employee shall notify his/her supervisor so that arrangements can be made for any temporary replacement needed during the absence.

**Section 4** Any employee entitled to reemployment under any Federal statute relating to the reemployment of persons honorably discharged from the Armed Services shall be reemployed in accordance with the provisions of the statutory enactment in effect at the time the employee is discharged from the service.

**Section 5** Employees of the Company covered by this Agreement who have established seniority with the Company and are eligible for the draft who voluntarily enlist in the armed forces or are drafted into the service of the United States Government shall be considered by the parties hereto as “furloughed” employees and shall continue to accumulate seniority with the Company during the period of time they are in such service, provided such employees report for reemployment with the Company within ninety (90) days after discharge from the service. Upon such employees’ return to work, provided they are qualified to do so, the regular rules of seniority will prevail for employees below them on the seniority list.

**Section 6** The Company agrees to apply the same military leave benefit to bargained employees as non-bargained employees outlined in HR Policy 702. Employees called to active duty shall be paid the difference between military base pay and up to 40 hours per week of regular pay for the tour of duty, not to exceed one year.

## **Article 15**

### **JURY DUTY**

**Section 1** When a regular employee has been absent from work because of jury service, the employee shall be paid his/her regular salary by the Company with the understanding that at the completion of his/her jury service, the employee shall show his/her jury service checks to the Company, and that the amount of such checks, less the amount included for traveling expenses, shall be deducted from the employee’s next regular pay check. When discharged from jury duty, an employee shall return to work as soon thereafter as is practical.

## Article 16

### STAND-BY/ON-CALL

**Section 1 *Standby:*** When an employee is called for “stand-by” duty at irregular hours and is required to be available at a specific location, the employee shall be paid at the employee’s regular overtime rate for the time so spent with a minimum of one (1) hour.

**Section 2 *On-Call:*** (a) Service Technicians assigned to take overtime calls by the Company during their regular time off must be available and fit for duty. They will not be required to stay at home and will be free to come and go at will, but shall leave word of where they may be reached if needed. If they are assigned to take overtime calls and are going to be out of the community where they could not be readily reached they will make other arrangements to take overtime calls.

(b) Service Technicians assigned to take overtime calls by the Company will receive \$\$215 on-call compensation for weekend assignments. This on-call compensation will increase on May 1, 2012 to \$\$225 on May 1, 2013 to \$235 and on May 1, 2014 to \$245; capping when weekend on-call compensation is increased to \$245 on May 1, 2014. For purposes of this subsection weekend is defined as the time period beginning at 5 p.m. Friday and ending at 8 a.m. Monday.

(c) Other qualified employees in the bargaining unit other than Service Technicians may volunteer for Company approved on-call assignments and will be compensated according to subsection (b) above.

(d) District Representatives have the responsibility outside of normal work hours to assure timely service to

customers and are also responsible for the safe operation of their assigned gas and/or electric distribution systems. District Representatives assigned weekend coverage are responsible to take all calls for the weekend. The responsible District Representative can either take the call or call another qualified person from that location to respond. The responsible District Representative is ultimately responsible to insure the call is addressed and Company on-call systems have been updated. The District Representative will receive a monthly payment for fair and equitable sharing of on-call responsibilities. The payment is equivalent to the amount paid for one weekend assignment defined in Article 16, Section 2(b). It will be paid on the pay date for the first pay period of each month.

To support District Representatives in covering their communities the Company and Union agree service technicians in smaller communities may be assigned on-call by the Company in accordance with provisions of Article 16, Section 2 (a). Each Service Technician assigned on-call will receive a monthly payment for fair and equitable sharing of on-call responsibilities. The payment is equivalent to the amount paid for one weekend assignment defined in Article 16, Section 2(b). It will be paid on the pay date for the first pay period of each month. Current locations included are Bowman, Glasgow, Lemmon, Plentywood, Sidney, Tioga, Stanley, Watford City, Linton, Mobridge, and Lovell/Powell. The identified locations may increase or decrease at the Company's sole discretion based on staffing and efficient grouping of communities for on-call coverage.

***Note:***

*The Company agrees to establish weekend coverage rotations and review with the System Council Business Manager,*

*at which time District Representative compensation will commence; but no later than 30 days after CBA ratification.*

## **Article 17**

### **MEALS**

**Section 1** It is the responsibility of employees to furnish their own meals. Reasonable meal costs associated with overnight assignments will be paid.

**Section 2** When employees on electric and gas construction crews are notified to bring a lunch, they shall be reimbursed \$\$10.00. This provision shall not apply to other employees in the region and/or power plants.

**Section 3** Overtime meals will be eaten on the employee's time except when they are "eaten on the run."

**Section 4** An employee called in to work two hours or more preceding and continuous with the regularly scheduled work day will be given company time off to eat at the first reasonable opportunity after the regularly scheduled work day begins.

**Section 5** Power plant employees will be released when possible to go purchase their own meals. Ready to eat frozen or canned food will be kept on hand at the generating plants. Plant management will coordinate efforts with an employee from the bargaining unit at each plant to purchase and maintain such food stocks. Non-shift employees, when it is impossible to be released, will be furnished meals by the company. Employees who cannot be released will eat on the fly and their time will continue at the applicable rate of pay

## **Article 18**

### **BULLETIN BOARDS**

**Section 1** The Company shall supply bulletin board space for use of the Union in posting officially signed Union bulletins.

## **Article 19**

### **SAFETY**

**Section 1** The Company and the Union agree that there is a General Safety Committee and Region or Division Safety Committee which shall meet at reasonable intervals of time. The committees shall consist of an equal number of members appointed by the Company and the Union. All committee members shall be full-time employees of Montana-Dakota Utilities Co. Also, the Company director of safety shall be an ex-officio member of the General Safety Committee and the Region or Division Safety Chairman shall be an ex-officio member of the Region or Division Safety Committee. The function of the committees shall be to make recommendations concerning safety and health matters involving employees in the bargaining unit but not to handle grievances. The Union shall be advised of final disposition of the committees' recommendations.

**Section 2** The safety of the employees is a matter of paramount importance, and shall receive first consideration. It is the responsibility of each employee to assure the safety of himself/herself, coworkers, and the public. The Safe Practices Manual and other recognized safety rules shall be followed. No employee shall be allowed or required to take any undue risk in the performance of his/her duties which he/she or lead or supervisor considers

unsafe. Supervisors and leads will be held responsible for the enforcement of safe working rules.

**Section 3** When new equipment is introduced, employees who will be required to maintain, operate or install the equipment shall be trained in its use and maintenance.

**Section 4** The Company agrees to furnish such safety devices and safety equipment, including first aid kits and safety manuals as may be reasonably necessary in accordance with the Company's recognized safety rules for the health and safety of its employees while on duty, and the Union agrees on behalf of the employees, that such devices and equipment shall be used and that the safety manuals will be followed.

**Section 5** In maintaining continuity of service, the Company reserves the right to determine the type and location of all duties to be performed by outside hourly employees during inclement weather. Such duties will include work as is available and which the employee is capable of performing or, when practicable, the time may be devoted to safety, first aid, or other instruction.

The company shall not require employees covered by this Agreement to work out of doors during unreasonable weather conditions unless work is necessary to protect life or property or to maintain service to the public.

**Section 6** In conformance with good safety practices, all employees shall wear required safety equipment at all times when actively engaged in work.

Those employees required to wear safety helmets, hard hats and/or other required safety equipment, will do so at all times. Failure of any such employee to abide by this rule may call for disciplinary action.

The Company shall furnish all required safety equipment and the employees receiving such equipment shall be held responsible for their condition; reasonable wear, loss and damage excepted.

**Section 7** Employees may voluntarily work at levels of more than fifty (50) feet above ground on steel towers or fixtures of others, but shall not be required to do so except to install, maintain, repair, or remove property owned by the Company.

**Section 8** An apprentice shall not be required to perform hazardous work without competent supervision of a journeyman or higher classification.

**Section 9** An employee shall not be required to work on any wires, cables, or conductors carrying six hundred (600) volts or more unless assisted by another fully experienced and qualified worker. Two journeymen or one journeyman and a fourth-year apprentice shall be required for all repair work on wires carrying more than six hundred (600) volts and this requirement shall include such repair work performed above other circuits or wires on the same pole or standard also carrying more than six hundred (600) volts. However, this shall not apply to the operation of equipment, nor in case of emergency where lives or property are in danger, nor in fusing transformers, unless in fusing transformers the work would be considered extremely hazardous.

**Section 10** An employee shall not be required to make major mechanical repairs on a high pressure gas line unless assisted by another fully experienced qualified worker.

**Section 11** The company shall furnish the following safety equipment for line technicians:

1. Plano safety glasses will be supplied if requested.
2. Worn out or torn linemen's gloves shall be replaced.

The company shall furnish the following safety equipment for welders:

1. Plano safety glasses shall be supplied if requested.
2. Worn out or torn welder's gloves shall be replaced.
3. New and replacement welders sleeves shall be furnished.

## **Article 20**

### **LEAVE OF ABSENCE**

**Section 1** A maximum of sixty (60) days leave of absence may be granted to regular employees, for reasons other than illness and recuperation, with the written approval of the department head, provided they can be spared from duty. Such leave of absence may be extended to six (6) months with the written approval of the Company. While on such leaves of absence such employees shall not be deemed to have forfeited their seniority rights. If an employee remains away for more than the term of such leave of absence, or if the employee accepts employment elsewhere while on such leave of absence without sanction of the Company, the employee's employment with the Company shall be deemed to have terminated.

**Section 2** Should the Union select a Company employee as the Union's full-time business agent, the Company will grant the selected employee leave of absence and it is further agreed that the Company and the responsible Union head will meet and mutually agree to detailed arrangements fair and equitable to the parties concerned.

**Section 3** Employees of the Company who may be called upon to transact business for the Union which requires their absence from duty with the Company and

if their work assignment permits shall upon application of five days notice, and with permission from the proper representatives of the Company, be allowed to absent themselves without pay for sufficient time to transact such business.

**Section 4** Leaves of absence granted in accordance with the provisions of this Article shall be without pay.

## **Article 21**

### **TRAVEL**

**Section 1** All employees shall go from shop, or if away from headquarters from a convenient designated place of assembly, to the job, job to job, job to shop, or designated place of assembly on Company time. The Company may require employees assigned "MobileUp™" units to start work from their place of residence. Travel time for the purpose of obtaining meals will be part of the meal period. The designated place of assembly shall be a location within the community where the employee was lodged.

**Section 2** When crews or parts of crews are to travel out of headquarters and remain away overnight, they are, except in emergency, to be notified not later than 5:00 p.m. of the work day previous. When not notified by 5:00 p.m. of the work day previous, all hours worked up to fourteen (14) hours, for the first day will be paid at time and one half (1½) time regular rate of pay.

**Section 3** All employees working within seventy five (75) miles of their headquarters shall be returned to their headquarters each night with the consent of a majority of the crew and the approval of the Region Manager or his/her designee, provided no overtime work is scheduled for that evening.

**Section 4** Employees while attending training schools, conferences, seminars, operating meetings or service schools voluntarily entered, shall be paid their regular straight time rate of pay for all hours spent attending such sessions during normal working hours, but excluding time spent for travel outside of normal working hours. For attendance that is compulsory, the employee shall be paid for all time spent, including travel, at the appropriate rate and for all other necessary expenses. Pay for travel time and necessary expenses for compulsory sessions are for sessions attended outside the community in which an employee is normally lodged. Employees shall not be required to attend any of the above sessions on their scheduled days off unless they elect to do so.

**Section 5** When an employee is required to work or train on overnight assignments away from his/her regular place of employment, the employee shall be reimbursed for necessary meals and expenses.

## **Article 22**

### **SPECIAL PREMIUMS**

**Section 1** The Company agrees to pay a premium of one-half the straight time rate of pay to line technicians when working at levels in excess of 70 feet above the ground and to employees working aloft the two steel 230KV transmission line structures near Heskett Station.

**Section 2** The Company agrees to pay a premium of one-half the straight time rate of pay to power plant employees when working from temporary scaffolding and generation plant stacks at levels above 70 feet. This shall not apply when riding the stack elevator and working on the Continuous Emissions Monitoring System (CEMS) equipment.

**Section 3** Regularly scheduled shift workers who work “rotating” shifts shall receive premium pay of \$1.25 per hour for all hours worked between 4 p.m. and 8 a.m.

**Section 4** When the work is hazardous or requires supervision of a lead and a crew of three or more employees are assigned to work without a regular lead, one member of the crew shall be designated as lead, and he/she shall receive, for the time worked, 30 cents per hour over his/her regular rate.

**Section 5** Pole setting crews, excluding groundpeople for digging holes and for handling material shall consist of a majority of journey level line technicians if available.

**Section 6** Employees when engaged in patrolling lines by aircraft shall receive the applicable hourly rate of pay for the time actually spent between takeoff and landing plus an additional one-half ( $\frac{1}{2}$ ) of their straight time hourly rate of pay. This provision shall not prevent supervisory employees from patrolling lines by aircraft. No one will be compelled to patrol lines by aircraft against their will.

**Section 7** The working lead position will be filled in the absence of the regular lead on crews consisting of three (3) or more members, including the crew lead. This section does not apply to the service department.

## **Article 23**

### **EXCLUSION**

**Section 1** This Agreement does not apply to chief operators whose duties are supervisory only, superintendents or leads who do not regularly take a shift or work with tools, but they shall be permitted to take shift or work with tools during the illness of other employees, during vacation periods, training, or in emergencies. However,

supervisors shall not displace an employee who regularly does the work and is available for the work.

**Section 2** This Agreement does not apply to part-time service technicians or chart changers in small communities working less than twenty (20) hours per month.

## **Article 24**

### **SENIORITY**

**Section 1** Seniority shall mean length of continuous service with the Company.

**Section 2** Continuous service shall be terminated when the employee:

(a) Voluntarily terminates his/her employment.

(b) Is discharged for cause.

(c) Absents himself/herself beyond a period for which he/she has been granted a leave of absence.

(d) Fails to return to work within ten (10) days after being recalled from a layoff.

(e) Retires.

(f) Does not call or report in for three (3) consecutive workdays except when beyond the control of the employee.

(g) Completes 24 months of LTD coverage, at which time the employee will completely sever all relationship, present or future, with the Company, including but not limited to accumulation of additional seniority and rights to any and all future benefits.

**Section 3 Promotions:** Should a job vacancy occur for which an employee is eligible, and the opening is offered

to the employee, the employee's seniority shall not be adversely affected should he/she decline to take the job.

**Section 4 Layoff:** A regular employee who is laid off by a reduction of work force will have the right to exercise his/her company seniority as provided in either subsections (a) or (b). Such rights must be exercised within two (2) weeks of the layoff notice.

(a) A regular employee who is laid off will have the right to exercise his/her company seniority, within his/her region, general office group or plant, in any classification where he/she is qualified; provided his/her seniority is greater than that of the employee whom he/she seeks to displace.

(b) A regular employee who is laid off will have the right to exercise his/her company seniority over the least senior employee, within the bargaining unit, in the same classification where qualified, at no wage reduction.

The displaced junior employee's rights shall be restricted to the exercise of his/her right to bid for any posted job opening and shall be notified of such openings for a period of one (1) year from the date of his/her displacement, such notice to be mailed to employee's last known address.

**Section 5 Recall:** When a regular employee has been laid off for reasons beyond the employee's control and is later re-employed within one year, such layoffs shall not adversely affect the employee's seniority.

**Section 6** When adding to the forces in a region, power plant or general office group, the last employee laid off in the classification involved shall be the first to be re-employed if available and physically qualified to return

to work and if the employee has been off the payroll for less than one year. The Company shall be required to give the employee and the Local Union, written notice of its desire for such employee to return to work. If after ten (10) working days the employee fails to return to work in the employee's established classification the employee will have forfeited his/her full seniority rights.

**Section 7** Employees, through representatives of the Local Union, shall have the right to a hearing on any differences of opinion as to promotion or demotion, discipline administered, lay-off or discharge, provided the employee notifies the representative of the bargaining agency and the Company, in writing within ten (10) days from the date of action complained of, that the employee wishes to be heard. Such hearing shall be first before the head of the department to whom the employee involved is responsible. In cases of failure to settle differences, then the differences shall be dealt with as provided herein. No discipline or suspension shall be administered to an employee, covered by this Agreement, which shall permanently impair the employee's previously accrued seniority rights.

**Section 8** Employees assigned to vacancies or new positions will be given a reasonable opportunity to demonstrate their qualifications and ability to fill such vacancies or position. If such employees do not qualify in the vacancies or new positions within a reasonable time, the employees shall be returned to the position transferred from and their seniority will not be jeopardized. If the employee proves his/her ability the employee shall be promoted to the new classification. The provisions of this section do not apply to an employee who has

requested and accepted a new position through the job bidding procedure.

**Section 9** Upon promotion to a higher classification, an employee shall be given a three (3) month qualifying period in which it shall be determined whether or not the employee can meet the job requirements. During this period, the employee shall be instructed and trained in the job. If the employee fails to meet job requirements within this period, he/she shall be reassigned to the classification from which he/she was promoted and resume the wage rate and seniority standing in that classification the same as if he/she had not been promoted. The provisions of this section do not apply to an employee who has requested a promotion through the job bidding procedure.

**Section 10** Any regular employee of the Company covered by this Agreement who is unable to work due to illness or injury shall continue to accumulate seniority during his/her absence and shall be reinstated upon recovery to his/her former position or another position of similar status with full seniority rights subject to Article 24, Section 2(g) and Memorandum of Agreement #1 "Sickness and Maternity", provided the employee is physically and job qualified to return to work. It is understood that when such an employee returns to work the regular rules of seniority will prevail for those employees below him/her on the seniority list unless otherwise mutually agreed between the Local Union and Company.

**Section 11** The Company agrees to furnish the Union a seniority list showing the employee's name, present classification, date employed, and rate of pay. This list is to be furnished as of January 1 of each year and transmitted to the Union not later than February 15.

## **Article 25**

### **JOB POSTING**

**Section 1** (a) When a job vacancy occurs in any classification covered by this Agreement, other than all electric generating classifications within the block system – excluding Yard Operator, Mechanic Welder, Results Technician, and Electrician; the Company shall post notice of the job vacancy on the company electronic web site, jobs.mdu.com for a period of six (6) working days, excluding Saturday, Sunday and holidays. All employees shall receive e-mail notification of job vacancies simultaneously with the vacancy being posted on the jobs.mdu.com website. Simultaneous is defined and agreed to mean within the same day. Preference will be given to qualified applicants within the respective region, general office group, or power plant before equally qualified applicants from other areas of the company will be considered.

(b) The Company will accept bids of employees for such vacancies provided that such applications are received by the region, general office or plant manager within the posting period.

(c) In filling these vacancies, the qualifications to be considered are education, ability and knowledge of the job being filled.

(d) In case two (2) or more employees shall equally qualify for the same opening, seniority will then govern in the award of the opening.

(e) If no qualified applicant is found among those bidding for the vacancy, the Company shall have the right to fill the vacancy from any source.

(f) An employee who requests a move or transfer under the provisions of this section will not be reimbursed for any moving expenses. An employee whose work location is changed from one community to another at Company request, shall receive reimbursement of personal expenses occasioned by such move as outlined in Corporate Policy Statement AD-17 and CORP80.

(g) The Company presently attempts to cross train employees where practicable in preparation for future advancement. This training will be offered in order of seniority.

(h) An employee who requests and accepts a new position as provided for in this section may be required to stay in the new position for a period of two (2) years; however, the employee may return to their old position anytime during the first ten (10) working days in the new position. New employees may be required to stay in the community they were hired into for a period of two (2) years. This subsection does not apply to related jobs in the same department.

(i) The provisions of this article may, after consultation with the Union, be waived in a special instance requiring the reassignment of an employee not physically qualified to perform work in the employee's regular classification.

## **Article 26**

### **UNION SECURITY**

**Section 1** In the event of a majority of regular employees in other communities served by the Company become members of the Union, the Company agrees to meet with representatives of the Union to negotiate wages, hours, and

conditions of employment for such group of employees in conformity with the terms of this Agreement.

**Section 2** Regular, regular part-time, probationary and temporary employees in Montana covered by this Agreement and such employees transferred into said area on and after the effective date of this Agreement shall be required as a condition of employment or transfer to become members of the Union thirty (30) days following the date of their employment or transfer and thereafter to remain members of the Union during the term of this Agreement.

**Section 3** In the event that during the term of this Agreement the Federal laws or the laws of the states of North Dakota, South Dakota, or Wyoming are amended so that the provisions of Section 2 above become lawful in any of those states thereafter, the provisions of said section shall be applicable to such state or states wherein the same are lawful.

**Section 4** The Union agrees that there shall be no interference with nor hindrance of work of employees whose headquarters are in North Dakota, South Dakota, or Wyoming or areas not covered by this Agreement and whose work in the normal conduct of the Company's business necessitates their moving within or in and out of the state of Montana, even though such employees may not be members of the Union.

## **Article 27**

### **DEDUCTIONS OF UNION DUES**

**Section 1** Where not in conflict with Federal or State Laws or regulations the Company agrees that any employee covered by this Agreement may, upon written instructions

to the Company request the Company to deduct current Union dues from his/her earnings once each month, and the Company further agrees that amounts so deducted will be turned over monthly to the Financial Secretary of the Local Union representing such employee. It is understood that the written instructions to the Company authorizing such deductions of Union dues must be acceptable to the Company.

**Section 2** Any employee desiring withdrawal of the employee's Union dues deductions shall within ten (10) days following the annual anniversary date of this Agreement forward the request in writing by registered mail, return receipt requested, to the Local Union and to the Company.

**Section 3** This Agreement to deduct Union dues shall not apply to initiation fees, special assessments or payments of any kind due the Union by the employee other than Union dues.

**Section 4** If there should be insufficient pay due the employee after all mandatory deductions have been made, the Company shall be relieved of all obligations to deduct the Union dues for that period and the Company shall not be required to deduct in a subsequent pay period the dues which were not deducted earlier due to insufficient pay.

**Section 5** The Company shall not be liable to the Union by reason of the requirements of this article for the remittance or payment of any sum other than that authorized by the employee constituting actual deductions made from wages earned by the employee. In addition, the Union shall indemnify and save the employer harmless from any liability resulting from any and all claims, demands,

suits, or any other action arising from compliance with this section.

**Section 6** The Company agrees to honor voluntary payroll deduction authorizations from employees who are Union members and who wish to contribute to IBEW COPE. IBEW COPE payroll deduction authorizations may be revoked at any time by notifying the Company in writing requesting withdrawal of this deduction.

## **Article 28**

### **NO STRIKES OR LOCKOUTS**

**Section 1** It is recognized that the Company is engaged in public service requiring continuous operation and it is agreed in recognition of such obligations of continuous service that, during the term of this Agreement there shall be no cessation of work by the Union and that the Company will not lock out the employees covered by this Agreement on account of any controversy respecting the provisions of the Agreement. All such controversies shall be handled as provided for herein.

**Section 2** It shall not be cause for discharge if any employee or employees refuse to go through any authorized picket line of any Union. Nor shall the Union impose, or threaten to impose, any disciplinary action upon any member for going through a picket line of any Union other than the employee's own.

## **Article 29**

### **GRIEVANCE PROCEDURE**

**Section 1 Step One of the Grievance Procedure** - Should any difference arise concerning the terms and provisions of

this Agreement, such difference shall be verbally discussed with the shop steward of the Local Union and a Company supervisor. If the difference cannot be resolved, it shall be presented in writing within thirty (30) days of first known occurrence setting forth the facts necessary to understand the issues, or state the Articles and Sections alleged to have been violated to the Region, General Office, or Power Production Manager to whom the employee(s) involved are responsible.

**Section 2 Step Two of the Grievance Procedure** - In case of failure to agree in the above manner, the Region, General Office, or Power Production Manager, or his/her representative, and the Local Union Business Manager or his/her representative shall within thirty (30) days, unless mutually agreed otherwise, meet and endeavor to settle the difference. Both parties may be accompanied by persons who may be in possession of information which would be helpful in reaching a satisfactory settlement. The Region, General Office, or Power Production Manager shall within ten (10) days after such meeting submit his/her decision in writing to the Union.

**Section 3 Step Three of the Grievance Procedure** - In case of failure to agree in the above manner, the points of difference shall within thirty (30) days be referred in writing by either party to the Employee and Labor Relations Manager of the Company and the Business Manager of System Council U-13 who shall, within thirty (30) days unless mutually agreed otherwise, go to the location where the dispute has arisen and jointly hold a hearing to determine the facts involved and in case settlement is not reached by them in writing within ten (10) days after such hearing it shall be referred at

the request of either or both parties to Arbitration as specified hereinafter.

**Section 4** Grievances relating to discharge shall within thirty (30) days from the date of discharge be submitted in writing to the Employee and Labor Relations Manager of the Company and begin at the third step of the grievance procedure.

## **Article 30 ARBITRATION**

**Section 1 Step One Arbitration** - Unresolved grievances, which cannot be settled by mutual agreement as hereinbefore provided, may be referred at the request of either or both parties to Arbitration, wherein the Company and the Union shall, within fifteen (15) days each select a representative. The representatives so chosen shall attempt to adjust misunderstandings between the parties hereto, and in the event of failure to adjust such matters, the two representatives thus chosen shall return the matter back to their respective parties.

**Section 2 Final Arbitration** - In the event either party desired to proceed to final Arbitration they will request that the Federal Mediation and Conciliation Service submit a panel of five (5) persons, and from these five (5) persons, the parties will select an arbitrator to hear the matter in final Arbitration. The selection of the arbitrator shall be made as follows: the party requesting the arbitration shall first eliminate one of the five (5) names, then each party shall alternate, eliminating a name until one name remains and the person whose name remains shall be the arbitrator. The Company and the Union agree that the decision of the arbitrator shall be final and binding on the parties hereto.

**Section 3** Each party shall bear the expense of preparing and presenting its own case and the expense of its own representative in Final Arbitration, the expense of the third arbiter and incidental expense of arbitration, previously agreed upon, will be borne equally by the parties hereto.

**Section 4** The arbitrator shall not be empowered to add to, subtract from, or modify the terms of this Agreement.

## **Article 31 LEGALITY**

**Section 1** It is understood and agreed that any part of this Agreement that may be construed by State or Federal authority to be in conflict with any present or future laws shall be inoperative, but all other provisions shall continue in full force and effect. Accommodations required to comply with the Americans with Disabilities Act are specifically exempted from the provisions of this Agreement.

## **Article 32 ELECTRIC GENERATING PLANTS**

**Section 1** Promotions and downward movement from within the electric generating plants shall be made in accordance with the provisions of this Article.

**Section 2** It is agreed that a block system will prevail in all generating plants and that promotions and downward movement shall be as outlined by the lines of progressions as provided in Exhibit A.

**Section 3** If a position within the block system becomes vacant, an employee desiring a downward movement through the lines of progression, or an employee not tied to the lines of progression and desiring to enter a line of

progression will have the right to use their plant seniority, providing their ability and qualifications are equal. When entering another classification line of progression, it shall be at the lowest block within that line of progression with the exception of the yard line of progression, which may be entered at any block.

Employees from within the next lower block will have the right to exercise their plant seniority over any of the employees who may desire the vacant position through the above procedure, or they may use their block seniority over any employee within their block, providing their ability and qualifications are equal.

**Section 4** It is agreed that promotion in the block system shall be based on ability, qualifications, and seniority. Ability and qualifications being equal, seniority from within the block shall prevail. Seniority within any block shall mean the amount of continuous service within the block, but block seniority shall not be carried from one plant to another.

**Section 5** Electric generating plant employees may bid for vacancies or new positions outside the Electric Generating Department, in accordance with Article 25.

**Section 6** The Company and the Union agree that there is a Joint Power Plant Training Committee. The Committee, along with its present duties, shall continue to study and recommend improvements in the training program.

## **Article 33**

### **TERM OF AGREEMENT**

**Section 1** This agreement shall become effective May 13, 2011, and shall remain in full force and effect to and including the 30th day of April, 2015 (hereinafter referred to as the "expiration date") and shall continue in full force

and effect from year to year (April 30th hereinafter referred to as the “anniversary date”) unless terminated or changed pursuant to the following provisions in this article.

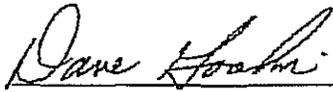
**Section 2** If either party desires to terminate this Agreement on the expiration date or any anniversary date thereafter, it may do so by giving written notice to the other party of its intention to do so not less than sixty (60) days prior to the proposed date of termination. Such notice shall be deemed to have been given in accordance with this provision if it is mailed to the Company at 400 North Fourth Street, Bismarck, North Dakota 58501; and the System Council U-13 of the I.B.E.W., 1800 Commerce Drive, Bismarck, North Dakota 58501, respectively, or such subsequent addresses as the Union may designate in writing to the Company.

**Section 3** If either party desires to change any of the provisions of this Agreement on the expiration date or on any anniversary date thereafter, it shall give written notice to the other party within the time and in the manner provided for in Section 2 above, and shall set forth in said notice the changes desired. The parties agree to meet and negotiate relative to the changes at a time agreed upon, which shall not be less than thirty (30) days prior to the expiration date or specified anniversary date unless prevented from doing so for good and sufficient reasons, in which case the parties will meet at the first available opportunity agreeable to both parties. Upon failure to agree to the proposed changes to the Agreement, either party reserves the right of all legal and economic recourse notwithstanding any other provision of the Agreement. If agreement as to the proposed amendments is not reached by the parties hereto by the expiration date of the Agreement then either party may within ten (10)

days thereafter notify the other party in writing that the agreement is cancelled effective ten (10) days from the date such notice of cancellation is given.

IN WITNESS WHEREOF, the parties above named have signed their names and affixed the signature of their authorized representatives on this 13<sup>th</sup> day of May, 2011.

MONTANA-DAKOTA UTILITIES CO.  
(A Division of MDUResources Group, Inc.)

  
\_\_\_\_\_  
DAVE GOODIN

President and Chief Executive Officer

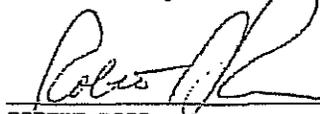
  
\_\_\_\_\_  
DOUG DEKON

Labor Relations Manager

SYSTEM COUNCIL U-13, Representing Local Unions 395, 423, 532, 653, 758, 958, 971, 975, 988, 1050, 1532, and 1616 of the INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS.

  
\_\_\_\_\_  
JOHN SCHREPENS

Chairman - System Council U-13

  
\_\_\_\_\_  
ROBERT ROSS

Business Manager - System Council U-13



**Exhibit A – CLASSIFICATION AND WAGE SCHEDULE  
GAS AND ELECTRIC DISTRIBUTION AND SERVICE  
INCLUDING ELECTRIC TRANSMISSION**

**These classifications and wage rates apply in the following regions:  
Badlands, Black Hills, Dakota Heartland, Rocky Mountain**

Classification	5/1/2010	5/23/2011	5/1/2012	5/1/2013	5/1/2014
			2.5%	2.5%	2.5%
<sup>2+</sup> Distribution Welder	31.41	32.27	33.08	33.91	34.76
*** District Representative - Comb.	34.95	35.91	36.81	37.73	38.67
** District Representative - Elec.	33.70	34.63	35.50	36.39	37.30
** District Representative - Gas	33.70	34.63	35.50	36.39	37.30
* Gas Fitter Operator	29.08	29.88	30.63	31.40	32.19
Laborer	12.97	13.33	13.66	14.00	14.35
** Line Technician	33.25	34.41	35.27	36.15	37.05
<sup>1+</sup> Mechanic (Auto/Work Equipment)	22.34	22.95	23.52	24.11	24.71
Meter Reader	17.83	18.32	18.78	19.25	19.73
Meter Technician A	32.41	33.30	34.13	34.98	35.85
** Meter Technician B	31.41	32.27	33.08	33.91	34.76
** Service Fitter	29.14	29.94	30.69	31.46	32.25
** Service Technician	29.14	29.94	30.69	31.46	32.25
*** Service Technician - Comb.	32.83	33.73	34.57	35.43	36.32
** Service Technician - Elec.	31.68	32.55	33.36	34.19	35.04
** Service Technician - Gas	31.68	32.55	33.36	34.19	35.04
<sup>1+</sup> Warehouseperson	21.30	21.89	22.44	23.00	23.58
Working Lead - Elec.	33.70	34.63	35.50	36.39	37.30
Working Lead - Gas	33.70	34.63	35.50	36.39	37.30
Working Lead - Linecrew	35.98	37.24	38.17	39.12	40.10
Working Lead - Service Comb.	34.95	35.91	36.81	37.73	38.67

Working Lead - Service Gas	33.70	34.63	35.50	36.39	37.30
* Landfill Gas Operator	33.70	34.63	35.50	36.39	37.30

**These classification and wage rates apply to the general office Group:**

Classification	5/1/2010	5/23/2011	5/1/2012 2.5%	5/1/2013 2.5%	5/1/2014 2.5%
** C & M Electrician	32.41	34.03	34.88	35.75	36.64
Meter Mechanic		24.29	24.90	25.52	26.16
Meter Transporter	17.83	18.32	18.78	19.25	19.73
Rubber Goods Tester A	29.93	30.75	31.52	32.31	33.12
* Rubber Goods Tester B	28.39	29.17	29.90	30.65	31.42
** Substation Electrician	34.72	36.46	37.37	38.30	39.26
Working Lead - C & M Electrician	34.30	36.02	36.92	37.84	38.79
Working Lead - Meter Mechanic	33.70	34.63	35.50	36.39	37.30
Working Lead - Substation Electrician	36.90	38.75	39.72	40.71	41.73

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<sup>1</sup> Grandfathered rates

Warehouseman (pre-9/6/82 hire)	23.87	24.53	25.14	25.77	26.41
Meter Reader (pre-9/6/82 hire)	20.39	20.95	21.47	22.01	22.56
Meter Mechanic (pre-5/1/11hire)	27.83	28.60	29.32	30.05	30.80

<sup>1</sup> Future negotiated wage increases in the amounts equal to those applicable to the reduced wage structure for the classification will be added when negotiated. Employees entering these classifications after 9/1/86 & 5/1/11 except those entering under Article 24, Section 4, will do so at the current wage.

<sup>2</sup> Employees entering this classification who have not completed the gas fitter operator course (or equivalent company training) must enroll in that two year apprenticeship at the appropriate level of percentage wage. They, will however after certification, receive full welders pay for any day during which they weld.

- \* Two year Apprenticeship (See Art.7 Sec. 7)
- \*\* Four year Apprenticeship (See Art.7 Sec. 7)
- \*\*\* Six year Apprenticeship (See Art.7 Sec. 7)

- + First six months - 80%
- Second sixth months - 90%
- Thereafter -100%

## LEWIS AND CLARK STATION

Classification	5/1/2010	5/23/2011	5/1/2012 2.5%	5/1/2013 2.5%	5/1/2014 2.5%
Operator 1 - Lewis & Clark	37.03	38.05	39.00	39.98	40.98
Operator 2	32.71	33.61	34.45	35.31	36.19
Operator 3	30.41	31.25	32.03	32.83	33.65
Lead Yard Operator	32.45	33.34	34.17	35.02	35.90
+ Yard Operator	28.72	29.51	30.25	31.01	31.79
+ Yardperson	18.10	18.60	19.07	19.55	20.04
Lead Electrician	36.32	37.32	38.25	39.21	40.19
** Electrician	33.84	34.77	35.64	36.53	37.44
Lead Mechanic	36.32	37.32	38.25	39.21	40.19
<sup>1</sup> Certified Mechanic Welder	32.45	33.84	34.69	35.56	36.45
* Mechanic Welder	31.39	32.25	33.06	33.89	34.74
Lead Results Technician	36.32	37.32	38.25	39.21	40.19
** Results Technician	33.84	34.77	35.64	36.53	37.44

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\* Two year Apprenticeship (See Art.7 Sec. 7)

+ First six months - 80%

\*\* Four year Apprenticeship (See Art.7 Sec. 7)

Second sixth months - 90%

Thereafter -100%

<sup>1</sup> A Certified Welder who is unable to certify annually will be reclassified as Mechanic Welder.

## R.M. HESKETT STATION

Classification	5/1/2010	5/23/2011	5/1/2012 2.5%	5/1/2013 2.5%	5/1/2014 2.5%
Lead Operator	37.03	38.05	39.00	39.98	40.98
Operator 1 - Heskett	34.59	35.54	36.43	37.34	38.27
Operator 2	32.71	33.61	34.45	35.31	36.19
Operator 3	30.41	31.25	32.03	32.83	33.65
Lead Yard Operator	32.45	33.34	34.17	35.02	35.90
+ Yard Operator	28.72	29.51	30.25	31.01	31.79
+ Yardperson	18.10	18.60	19.07	19.55	20.04
Lead Electrician	36.32	37.32	38.25	39.21	40.19
** Electrician	33.84	34.77	35.64	36.53	37.44
Lead Mechanic	36.32	37.32	38.25	39.21	40.19
<sup>1</sup> Certified Mechanic Welder	32.45	33.84	34.69	35.56	36.45
* Mechanic Welder	31.39	32.25	33.06	33.89	34.74
Lead Results Technician	36.32	37.32	38.25	39.21	40.19
** Results Technician	33.84	34.77	35.64	36.53	37.44

\* Two year Apprenticeship (See Art.7 Sec. 7)

\*\* Four year Apprenticeship (See Art.7 Sec. 7)

+ First six months - 80%

Second sixth months - 90%

Thereafter -100%

<sup>1</sup> A Certified Welder who is unable to certify annually will be reclassified as Mechanic Welder.

**GLENDIVE, MILES CITY, AND WILLISTON PLANTS**

<b>Classification</b>	<b>5/1/2010</b>	<b>5/23/2011</b>	<b>5/1/2012</b>	<b>5/1/2013</b>	<b>5/1/2014</b>
			<b>2.5%</b>	<b>2.5%</b>	<b>2.5%</b>
Operator Technician	35.96	36.95	37.87	38.82	39.79

**LINE OF PROGRESSION  
GLENDIVE – MILES CITY – WILLISTON**

OPERATOR TECHNICIAN

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**WIND TURBINES - BAKER, RHAME**

<b>Classification</b>	<b>5/1/2010</b>	<b>5/23/2011</b>	<b>5/1/2012</b>	<b>5/1/2013</b>	<b>5/1/2014</b>
			<b>2.5%</b>	<b>2.5%</b>	<b>2.5%</b>
**** Wind Technician	31.39	32.25	33.06	33.89	34.74
Lead Wind Technician	33.69	34.62	35.49	36.38	37.29

\*\*\*\* Three year Apprenticeship (See Art.7 Sec. 7)

**Following is a summary of wage adjustments reflected in Exhibit A:**

**First Year:**

All classifications other than those specifically listed below will receive a 2.75% wage adjustment.

- The Substation Electrician classifications shall receive a 5.0% wage adjustment to the base wage.
- The Line Technician and Working Lead-Line crew classifications shall receive a 3.5% wage adjustment to the base wage.
- Mechanic Certified Welder classification shall receive an additional \$.50/hr on top of the 2.75% base wage adjustment.
- Establish new wage rate of \$24.29 for Meter Mechanics. New wage rate will only apply to new hires upon ratification of the CBA.

**Second Year:**

- All classifications shall receive 2.5% adjustment

**Third Year:**

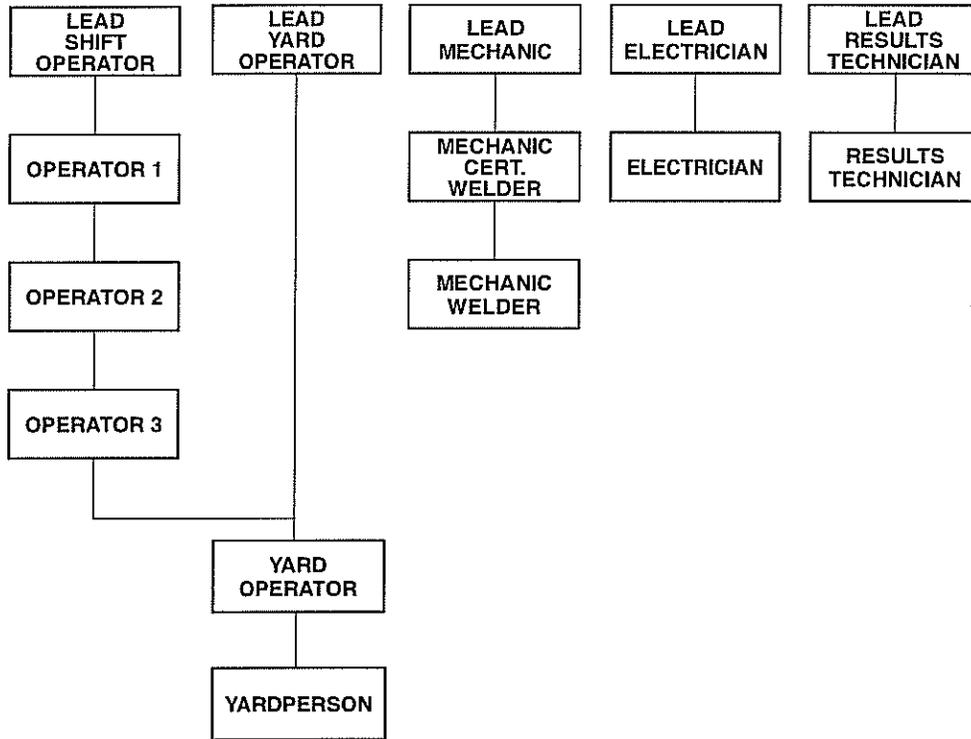
- All classifications shall receive 2.5% adjustment

**Fourth Year:**

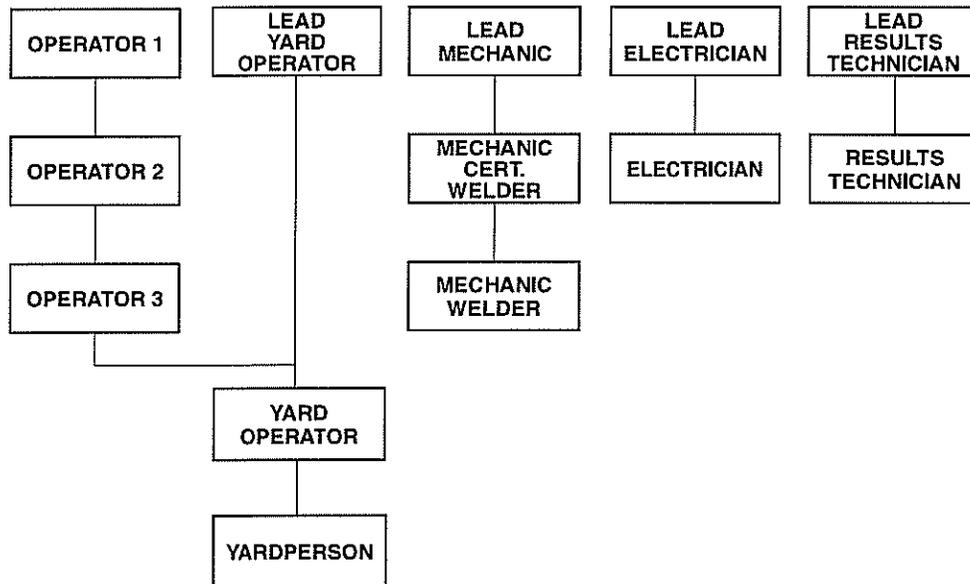
- All classifications shall receive 2.5% adjustment.
- In contract year 2014 exhibit A may be opened by the Bargaining Unit for re-negotiation of wage rates only. If exhibit A is opened by the Bargaining Unit for re-negotiation, the negotiated 2.5% increase for year four (4) is void and all wage rates are open for negotiation.

Negotiated wage increases for the first year of the collective bargaining agreement are effective May 23, 2011; and May 1 for the remainder of the agreement.

## LINE OF PROGRESSION R. M. HESKETT STATION



## LINE OF PROGRESSION LEWIS & CLARK STATION



## APPENDIX A

The Company and the Union agree to form a committee for the purpose of reviewing and evaluating memorandums of agreement and other documents relevant to administration of the current labor agreement. These documents will be jointly identified for review by the Business Manager of System Council U-13 and the Employee and Labor Relations Manager. It is understood the list of documents identified may not be all inclusive. The committee will recommend:

1. The document remains a stand alone document, identified on a list maintained by both parties, or
2. The document is incorporated into a future labor agreement with mutually agreed upon language, or
3. The provisions of the document are no longer valid.

If the committee does not reach an agreement as listed in 1-3 above, the document will remain in effect and be administered as written. Any future memorandums of agreement drafted will need the approval of the Business Manager of System Council U-13 and the Employee and Labor Relations Manager.

## APPENDIX B

### MEMORANDUM OF AGREEMENT #1

#### Sickness and Maternity

Employees normally will be allowed sick leave with regular pay as outlined in this policy. It has been a long-standing policy in the Company to give assistance to an employee who becomes sick and cannot perform his/her regular duties. When an employee is well and healthy the employee is expected to work. The purpose of sick leave is to assist an employee in the recovery of their illness or injury so they can return to work as soon as possible. While on sick leave the employee shall not engage in activities that would hinder the employees return to work. Violations or abuse of sick leave will result in disciplinary action up to and including termination of employment.

Maternity leaves will be administered the same as sick leave as described in this section.

The company sick leave policy does not provide for compensation from the company for absences due to injury resulting from accidents suffered while in the course of employment outside the company or illness originating from such outside employment activity.

An employee detained from work because of sickness or injury must promptly notify his/her supervisor they will not be reporting for work and must keep the company informed as to recovery, progress, and anticipated date of return to work. In certain cases the company may require acceptable medical evidence that an employee is unable to work or, conversely, that an employee is now well and able to return to work.

The amount of pay during a leave of absence for sickness and/or off-the-job injuries shall not exceed a total of 100 hours of paid leave within the first year of employment for employees having less than one full year of employment at the onset of any sickness and/or off-the-job injury. For employees having completed one full year of employment but less than two full years of employment at the onset of any sickness and/or off-the-job injury, such total benefits shall not exceed a total of 200 hours of paid leave within their first two years of employment. The 100 and 200 hour ceiling must be pro-rated downward accordingly for employees working less than 2080 hours annually who are eligible for sick leave payment (for example, an employee working 1820 hours per year would have an 87.5 hour ceiling in the first year of employment and a 175 hour ceiling in the first two years of employment).

For employees beyond their second full year of employment, the amount of pay during a leave of absence for sickness and/or off-the-job injuries will be determined individually for each case.

Compensation for a sick leave that does not exceed 80 consecutive work hours may be granted for employees by the region, power production or general office department manager without approval of the general office Human Resources Department and/or Senior Management. In certain cases the company may request that the employee submit medical evidence concerning the employee's illness in order for compensation to be considered.

Approval for compensation for sick leave beyond 80 consecutive work hours must be obtained from the general office Human Resources Department and/or Senior Management. Such sick leave requests normally must be

accompanied by acceptable written medical evidence furnished by the employee concerning his/her illness. The written medical evidence should explain the need for additional sick leave time and provide an estimated date that the employee might be expected to return to work. Subsequent written medical evidence may be requested by the company depending on the circumstances of the individual case.

Approval for compensation for sick leave must be obtained from the general office Human Resources Department and/or Senior Management when the employee has had more than 160 hours of sick leave within a calendar year. Although written medical evidence will not routinely be required in this instance, the company may request that the employee submit medical evidence concerning his/her illness.

The duration of the company payment for sick leave normally will not exceed six consecutive months. If after six months an employee remains disabled and unable to return to work, the employee will be eligible for consideration for the Long Term Disability Plan (LTD) under the terms of that plan. The payment schedule for continuous sickness and/or off the job injuries for employees in their second benefit waiting period will be 100% of their regular rate for the first ninety (90) calendar days and 80% of their regular rate for the second ninety (90) calendar days. An employee must return to their regular job performing, in the usual way, all the regular duties of their job on a full-time basis for thirty (30) calendar days before the payment schedule and the LTD benefit waiting period, would start over. If an employee returns, under the conditions stated above, for less than thirty (30) calendar days and then goes back

on sick leave, the payment schedule and the LTD benefit waiting period begin where they left off as if the employee had stayed on sick leave and never returned to work. For the period of time an employee returns to work they shall receive payment at their regular rate. An employee shall continue to accumulate seniority for the first 24 months of Long Term Disability (LTD) coverage. Following this period seniority shall terminate as set out in Article 24, Section 2(g).

Requests for general office approval shall be submitted on Form 20424, Request for Sick Leave Payment.

**Seniority/Service**  
**Credited During Approved Leaves**

Dependent upon the duration of the approved leave of absence and the work load, the company may elect to fill the position on a temporary or regular basis. Providing the employee returns within the allotted time from their approved leave of absence, they will be offered their previous position or another position of similar status and pay and the employee will retain any seniority/service credits that were accrued up to and including the leave of absence period.

## APPENDIX C

### MEMORANDUM OF AGREEMENT #2

The following job definitions are intended to describe the jobs in general terms only and to differentiate between the various jobs. The definitions are not intended to define all of the duties which may be required of the position.

- **GENERAL SERVICE TECHNICIAN (ELECTRIC)**

Performs all routine duties that are required to maintain electrical distribution systems. Performs all necessary duties that are required to provide electrical service to the customers, including the handling of all customer service calls and complaints. Also installs, repairs, and services all types of electrical appliances.

- **SERVICE TECHNICIAN**

Performs same duties as the general service technician–electric with the exception of those duties that require climbing poles. The primary difference between a general service technician–electric and a service technician is that the general service technician–electric must have the ability to climb poles.

- **SERVICE FITTER (GAS)**

Performs service and maintenance duties on customers' domestic and small commercial gas equipment including gas leak investigation and repair, customer turn-on and turn-offs, gas equipment installation and adjustment, gas piping, meter installation, changeouts, et cetera.

- **GENERAL SERVICE TECHNICIAN(GAS)**

Performs all duties of the service fitter. In addition, the employee performs all duties that are required to operate and maintain a gas distribution system; installs, maintains, repairs and services all types of domestic, commercial and industrial gas equipment.

The primary difference between a general service technician–gas and a service fitter is that a general service technician–gas must possess the necessary qualifications to perform the maintenance and service work on all types of domestic, commercial and industrial gas equipment.

- **GAS FITTER OPERATOR**

Installs and maintains gas mains and distribution facilities. Operates all equipment required in the construction and repair of gas mains and services.

## APPENDIX D

**Meter Reader Retention and Separation Pay** – Meter readers impacted by the automated meter reading project in 2007 and 2008 will be offered the option of retention and separation pay.

A Meter Reader Retention and Separation Agreement is available for meter readers affected by the 2007-2008 Automated Meter Reading Project.

- Meter readers who remain on the job until they are issued a layoff notice will qualify for the following payments, or they can exercise their right to bump under the provisions of the labor agreement.
  - a. Part-time meter readers - \$1,000
  - b. Full-time meter readers with less than 15 years of service - \$2,000
  - c. Full-time meter readers with 15 or more years of service - \$4,000
- The Company agrees to email Meter Reader job posting notices to the employees that accept the retention and separation pay for one year.

## APPENDIX E

### RETIREMENT PLAN

**Employees hired on or after July 1, 2007:** Employees are eligible for a 5% “Retirement Contribution” to their 401(k) account. The Retirement Contribution is in addition to the Company Matching Contribution and the Company Profit-Sharing Contribution.

**Employees hired before July 1, 2007:** Employees will no longer accrue pension credit beginning on the later date of June 30, 2011 or 45 days following ratification of the labor agreement. There is no change to the pension benefits employees have already earned prior to the pension freeze and benefits are considered frozen at the age 60 projected benefit level. If an employee is no longer employed prior to attaining age 60, benefits are calculated based on Plan provisions.

Employees participating in the MDU Resources Group Inc. Pension Plan for Collective Bargaining Unit Employees are eligible for a “Retirement Contribution” to their 401(k) account in lieu of the pension plan. The Retirement Contribution is in addition to the Company Matching Contribution and the Company Profit-Sharing Contribution. The Retirement Contribution will be made annually, no later than February 28 based on the schedule below. Employees remain at the contribution level defined by their age on June 30, 2011 throughout their employment.

If a fully vested employee leaves before the 1000 hour requirement the Company will pay them an amount equal to the 401(k) contribution forfeited. The retirement contribution would be paid outside of the 401(k) Plan.

<u>Age at June 30, 2011</u>	<u>K-Plan Retirement Contribution (% of Pay)</u>
Less than 30	5.0%
30 or more but less than 35	7.0%
35 or more but less than 40	9.0%
40 or more but less than 45	10.5%
45 and above	11.5%

Bargaining Unit Employees will receive the contributions as defined in the CBA. Bargaining Unit Employees who qualify as a HCE will receive retirement compensation from the Company equal to the tax burdens incurred.

#### **Bargaining Unit 401(k) Plan**

Beginning in January 2008 eligible employees qualify for an additional profit sharing feature to the 401(k) Plan. When the Company achieves 100% of the annual Utility financial goal the Company will make a 1% contribution to the employees' 401(k) Plan in the first quarter of the next year. The utility financial goal is based equally on earnings per share (EPS) and return on invested capital (ROIC).

## **APPENDIX F**

### **LETTERS OF DISCIPLINE**

The Company agrees as employee files are reviewed all letters of discipline that are more than five years old will be removed unless there is a more recent disciplinary letter for a related incident. Disciplinary letters reflecting a violation of law will be retained beyond five years.

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