



Mutual Aid Safety

Ensuring crews are provided the means needed to safely work
on your system.

Safety Basics – What info to provide

- What are your voltages
- System Abnormalities
- Grounding Requirements
- Energization Requirements
- Working Hours
- Non-Tangibles

Voltages

- Primary Voltages – should be shared before responding utility leaves their home territory to allow for proper PPE selection as needed
- Phasing (A, B, C South East and Top for example)
- Secondary Voltages/Types of transformer banks

Abnormalities

- What do you have on your system that others may not be accustomed to such as:
 - Aerial/Tree/Hendrix cable and associated bundled construction, needed tools, etc.
 - Overhead primary fed by UG cable out of a splice pit, transformer, etc.
 - Laterals that may be fed from 2 different locations with a normal open in the middle that may or may not be able to be tied together when energized
 - Old, out dated materials such as Copperweld A wire, Deer Butte Switches, etc
 - Known issues with certain materials, devices, etc such as certain switches, insulators, etc.

Grounding Requirements

- What size grounds are acceptable for distribution, transmission, underground, etc. Example: for all distribution lines a minimum of 1/0 copper grounds must be used when grounding for electric or tree crews.
- What marking tags must be utilized and what info should they contain. Orange pole wraps, hold tags on grounds, flags, etc. Company Name, Installer Name, Phone Number, etc.
- Who authorizes the installation and removal of grounds? Control Center, Bird Dog, etc. Is it determined by feeder/lateral/customer count/etc?

Energization Requirements

- When is permission required to energize a portion of the system?
 - Secondary, Transformers, Laterals, Feeders?
- Who is responsible for obtaining permission to energize?
 - Foreman, Bird Dog, etc.
- What steps must be taken prior to energizing?
 - Complete “eyes on” walkthrough inspection. Notification to Control Center? Notification to adjacent crews?

Working Hours and Meals

- What are the working hours?
 - Meal times and locations
 - Expectations of job completeness and state to leave jobs in prior to quitting for the day
 - Supervision and Bird Dogs work together to ensure crews know if they are coming back to the same job the next day or not so they know whether equipment can be left onsite or not

Yours versus Theirs Safety

- Most companies have sufficient and meaningful safety programs. Allow the crews follow their own safety standards unless they are in direct conflict to your own **and** truly pose a risk to either their self or others
 - Example: some companies only issue primary gloves and expect employees to wear those when making up energized secondary lines. Other companies issue both primary and secondary gloves. Either way meets OSHA requirements and are considered as safe methods of performing the same work.
 - Example: some companies require all trucks to be bonded to a ground, others only ground trucks without lower boom inserts, some do not bond any trucks to ground. OSHA allows trucks to grounded and also allows trucks to be isolated and barricaded.

Non-Tangibles

- Meals
 - Adequate amounts of decent quality food is important. Ask your normal field employees what they eat for breakfast, lunch, and dinner. Think of Grandma's Sunday Supper for example. Save the fancy meal for when all customers are restored and everyone is getting cut loose the next morning.
 - Hot Breakfast, Box lunches (if cold then pickup at breakfast, if serving hot then utilize runners to get them to the crews while they are still hot), hot dinner. Time meals to allow field crews the most hours of daylight to actually work. Dinner starting no earlier than 730-8PM. Breakfast starting no later than 6AM. Do not serve cold food or run out of food.

Non-Tangibles cont.

- Lodging
 - While utility employees are generally a resilient bunch, even they perform better when able to get a good nights sleep, have access to decent bathroom facilities, and have a place to decompress and unwind at the end of each day.
 - Most employees have been on at least one trip where they had to sleep in a FEMA tent, shelter, etc and survived. Just because one can does not mean one automatically should. Quality Lodging directly effects employee safety by helping ensure everyone gets adequate amounts of decent sleep.

Overall Mutual Aid Safety

- Safety is the result of proper training, adequate tooling, and meeting the needs of the employees performing the work.
 - Mutual Aid is not for training employees so try to use crews from reputable sources.
 - As host, be willing to provide necessary specialty tooling such as specific size wire strippers, different types of grips, grounding attachments, etc.
 - The largest difference a host utility can make in mutual aid crew safety is meeting the individual employee needs of lodging, meals, etc. The less they have to worry about things outside of restoring customers safely and efficiently, the safer they will perform overall.
 - Provide adequate support to crews performing work this includes ensuring an adequate number of line crews, tree crews, material runners, bird dogs, assessors, documentation providers, etc. While many employees can perform multiple tasks, try to assign employees/crews work that meets their full capabilities whenever possible.

DOCUMENT YOUR PROCESSES

- Who is responsible for what
 - Primary and Secondary Mutual Aid Coordinators need to be well versed in:
 - Process for providing and requesting mutual aid
 - What type of crews, equipment, tooling is needed
 - Traveling procedures, logistical needs
 - Who to contact for both normal and abnormal needs and situations
- Do not be a “one stop” shop
 - Delegate tasks as needed but not the responsibility
 - Lodging, Meals, Materials, and other logistical needs
 - Why keep responsibility? – The mutual aid coordinator should have the ultimate say in how mutual aid crews are taken care of. These crews should not have to call around to get an answer, handle an issue, or solve a problem.

Plan, Document the Plan, Review Regularly

- Plan ahead of time the when, how, who, and other factors of both requesting and providing mutual aid.
- Document that plan
 - Include important names, numbers, steps, and other functions that must be accomplished, who those are assigned to, and their backups
 - Put it in a format that is easy to read and concise. This is not the time for a booklet or binder full of things. Think more along the lines of a flow chart or bulleted list no more than what easily fits on a sheet of paper. Laminate it. Ensure the Mutual Aid Coordinator and backups have a copy readily available.
 - Set a calendar reminder monthly to review and update it as needed.

How to make hosting mutual aid crews easier

- Plan for the worst-case scenario
 - Significant Damage
 - No or limited hotel accommodations
 - No or limited restaurant availability
 - Material shortages
- Scale down from there as the situation permits
- GET HELP from within your organization for the large items
 - Lodging, Meals, Laundry, Fuels, Materials – Assign these to known high performers that can be trusted to ensure the success of their assignment

Do not ever think you are ready.....

- Know your successes, weaknesses, and the last storm is never an indicator of future success. The last storm was just another prep for the next one.
- What worked extremely well your last storm may fail for the next one
 - Someone retires, gets sick, hotels are full, contract caterer gets a more lucrative contract, the list can go on
 - Make a primary plan, then a backup, then a backup to the backup
- Just as in the military..... The best laid plans seldom last past initial contact with the enemy or in our case past the impact of a major storm event.

Questions?

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