- Training
- Equipment
- Liability

Requirements

Section 3
Utility Requirements

Developing a safe worksite by maintaining the current through the body at a safe level now becomes the task of all involved. First and foremost, utility management and the Safety Department must determine what they consider to be the maximum safe level of current flow allowable through the worker. Or, stated another way, the maximum allowable voltage that can be considered safe that can be developed across the worker must be specified. At the time of this writing, there was no standard or widely accepted maximum allowable body current. A value of 50 V is commonly used, but is not a requirement. This upper limit of exposure is a key consideration in selecting the size of protective equipment. Each worksite and each situation may be different, with each utility accepting a different margin of safety.

To develop a safe worksite requires the cooperation of several departments within the utility. The Engineering Department must supply an approximate level of fault current expected at an individual worksite or within an assigned working region. Engineering must also provide the maximum time that a fault current may flow at the identified sites. The Operations Department must develop appropriate work and equipment maintenance methods. The Purchasing Department, in cooperation with the Standards Group, must acquire appropriate safety equipment for issue and use by the workers. The Safety Department must coordinate all of these activities. Methods of evaluating and accomplishing a safe worksite are discussed later in this document.

Training: Utilities must use workers who possess the necessary skills to safely perform their jobs. Linemen have different skill levels. Typically, an electrical worker’s employer or the union formally defines each skill level. The levels typically consist of apprentice through journeyman. Formal plus on-the-job training and tailgate conferences expand the training and skill of apprentices and remind experienced linemen of approved safe work methods.

Many utilities have prepared internal publications to outline work rules and practices, approved for use by their utility. Others may not have a formal set of rules in place, relying rather on experienced linemen and the tailgate conference, now required by OSHA 29 before beginning work each day.

According to OSHA regulations, a worker’s training must be reviewed annually and be documented. Additional training must be provided if the review finds it to be needed. Additional information on the topic of training can be found in the next section on regulating agencies.

Worker safety is now everybody’s job. With OSHA regulations now in place, penalties for accidents can be severe and may affect a broad range of personnel throughout the utility if a lack of training is determined to be the cause.

Equipment: The utility must provide adequate equipment for the worker to perform the task in a safe, yet efficient manner. Depending upon its size, a utility typically has a person or department making equipment-purchasing decisions. Many utilities rely on national consensus standards to define equipment requirements. Some utilities have safety departments working in conjunction with those responsible for purchasing. They may have their own set of performance specifications drawn from several standards to meet their individual needs.

Adequate equipment to perform safe de-energized line maintenance includes voltage detectors, personal protective grounding assemblies made up with clamps, ferrules and cable with strengths and ratings to meet the safety needs of the worker. Choices and examples of suitable equipment are presented later. Maintenance of this equipment is an implied requirement (see the Equipment topic in the next section on regulating agencies).