Energy Delivery

PROCEDURES & GUIDELINES for Worker's Protection Assurance

Effective – January 1, 2025

	Ameren Missouri	Ameren Illinois	Ameren Transmission
Executive Signature	Mark Birk	Patrick Smith	Shawn Schukar

Table of Contents

Section 1 - General

Objective

The objective of this document is to outline the scope, purpose, responsibility, authorization, rules, and techniques to control hazardous energy sources on the Ameren Energy Delivery system. It will explain the tags used, the types of Worker's Protection Assurance (WPA), and the procedures for requesting, obtaining, and releasing of WPA on the Ameren Energy Delivery system.

Scope

The scope of this Worker's Protection Assurance Procedures and Guidelines is all Ameren Illinois, Ameren Missouri, and Ameren Transmission owned assets that make up the Energy Delivery System. These Procedures and Guidelines do not include facilities that are under the jurisdiction of the Ameren electric power generation stations. Facilities operating at voltages less than 600 Volts, Substation relays, control wiring or current transformer (CT) circuits are not covered under these WPA guidelines, except for Network Protectors.

This booklet is the authority for WPA and supersedes all previous documentation on WPA.

Purpose

Worker's Protection Assurance is Ameren's implementation of Lock Out/Tag Out (LOTO) defined in OSHA Title 29 CFR Part 1910.269(m).

The Ameren WPA Procedures and Guidelines establishes a program and procedures for affixing appropriate tags to energy isolating devices, to otherwise disable them, to prevent the unexpected energization, startup, or unexpected release of stored energy while persons perform construction, maintenance, service, repair, or testing activities.

Authorization

Employees and Contractors eligible to perform switching and tagging orders must be Qualified Persons that are knowledgeable of the equipment being operated. They must be trained and familiar with these Guidelines & Procedures for Worker's Protection Assurance.

Section 2 – Operating Authorities

The Jurisdictional and Functional Authorities are responsible for directing the safe operation of the Energy Delivery system within its ratings and equipment limitations and form the Operating Authorities for Ameren.

Jurisdictional Authority

The Jurisdictional Authority is in charge of and responsible for directing and coordinating the operation of system equipment. This includes complete authority of system configuration, switching, voltage control, equipment loading, and any other activities pertinent to proper operation of the Energy Delivery system. In most cases, this is the representative as delegated by the entity that owns the equipment.

Functional Authority

The Functional Authority specifically performs or directs a qualified person to perform switching operations as directed or authorized by the Jurisdictional Authority.

Only the Functional Authority may order isolating devices to be operated.

Only the Functional Authority may order the placement or removal of the Functional Authority's Tags (as defined in Section 4).

Only the Functional Authority may issue or accept the release of WPA.

The Distribution System Operating Supervisor (DSOS) is both Jurisdictional and Functional Authority on equipment that the Distribution Control Office has been delegated as the Operating Authority by Ameren.

Transmission Operations (TO) is both Jurisdictional and Functional Authority on equipment that Transmission Operations has been delegated as the Operating Authority by Ameren.

Section 3 – Responsibilities

Functional Authority Responsibility

It is the Functional Authority's responsibility to maintain the required equipment status and tagging while WPA is issued.

A Functional Authority may perform their duties only on equipment they exercise authority on.

Qualified Person Responsibility

The Qualified Person is responsible for maintaining strict observance of tag placement and WPA procedures and rules. They must also keep the Functional Authority informed of all pertinent equipment, personnel, and protection information.

Any WPA issued to a Qualified Person does not take the place of the person's own safe work practices, nor does it relieve the person of the responsibility of making the prescribed tests to determine if safe working conditions exist.

Communication

All communications with the Functional Authority regarding switching or WPA shall be conveyed via three-way communications using clear and concise orders.

The Functional Authority shall state the order to the Qualified Person, requiring the recipient of the order to repeat the information back correctly, then the Functional Authority will acknowledge the response as correct. If there are any misunderstandings, the original orders will be repeated to resolve any misunderstandings. This is commonly referred to as "three-way communication."

Three-way communication is critical to safe switching and successful WPA. Due to the importance of correct Functional Authority's Tag placement and WPA, it is the expectation that three-way communication shall always be used.

The Qualified Person receiving the orders shall record operating orders in a Switching Order Book, read the orders back, and receive acknowledgement to verify correctness before performing the orders.

Section 4 – Functional Authority's Tags

A Functional Authority may order tags placed for itself or for issuance to another Authority, depending upon who will issue the Worker's Protection Assurance. If more than one Functional Authority will issue WPA and needs a tag on a particular piece of equipment, then as many tags shall be placed as there are Functional Authorities issuing WPA.

Open Equipment

After equipment has been electrically operated such that no electrical connection exists that can pass current or voltage between the equipment's terminals, then equipment shall be deemed Open. Equipment capable of being restrained or locked shall be restrained or locked in its open position before being considered Open. Open shall be visibly verifiable, except on some network transformer primary switches.

Functional Authority's Hold Off Tag

A Hold Off is an order of a Functional Authority that the position of a disconnecting or isolating device, which it is intended to cover, must be held open. The Hold Off Tag is the tool used by the Functional Authority to ensure the device will remain held open. The position of the device shall not be changed under any circumstances unless ordered by the Functional Authority and then only after the Hold Off Tag has been ordered removed by the Functional Authority.

Equipment is considered Held-Off after the equipment has been properly Opened and Tagged by order of the Functional Authority, reported completed and acknowledged by the Functional Authority.

The presence of a Hold Off Tag on a control or isolating device does not assure the person that the equipment with which it is associated is completely isolated from known energy sources. It indicates only that the unit of equipment in question has been opened and is held from being operated.

The Hold Off Tag should be placed in close proximity to the disconnecting device, operating handle, or loops/jumpers. It should be in a location that is readily apparent to any Qualified Person that the equipment is Held-Off.

A Functional Authority may issue a Hold Off to an Other Authority as an assurance that the position of the equipment will not change until the Hold Off is returned to the Functional Authority. The Hold Off Tag may not be removed until the Other Authority returns the Hold Off to the Functional Authority.

Functional Authority's Racking Hold Off Tag

The Racking Hold Off Tag is a special type of tag used with circuit breakers that reside in a cubicle and can be racked on/off the bus. These types of circuit breakers are typically found in metal clad switchgear.

A Racking Hold Off Tag is the tool used by the Functional Authority to ensure a circuit breaker will remain racked off the bus. This can be accomplished by racking a breaker to its test position, by racking a breaker to its disconnected position, or by removing a breaker from its cubicle. The isolation point to which the Racking Hold Off Tag is being issued is the air gap created in the cubicle between the breaker stabs and the bus bars.

The breaker shall not be racked onto the bus bars under any circumstances unless ordered by the Functional Authority and then only after the Racking Hold Off Tag has been removed by order of the Functional Authority.

The presence of a Racking Hold Off Tag does not assure the person that the equipment with which it is associated is completely isolated from known energy sources. It indicates only that if a breaker is in the cubicle that it is not connected to the bus bars and will remain as such while the tag is in place.

The Racking Hold Off Tag will be placed on the circuit breaker cubicle that contains the breaker that is racked off the bus. It is typically hung on the control switch (52) on the breaker cubicle, or on an attachment point near the open/close buttons on a microprocessor-based relay. The Racking Hold Off Tag shall not be placed on the circuit breaker itself.

A racked off circuit breaker held with a Racking Hold Off Tag may be closed and opened, with permission from the Functional Authority, for testing or maintenance as long as the circuit breaker is not racked onto the bus.

In some cases, the Functional Authority may want additional assurance the circuit breaker will not be opened or closed, even in the test position. In these cases, a Functional Authority's Hold Off Tag will be used on the cubicle of the racked off breaker.

Functional Authority's Hazard Tag

The Hazard Tag is placed by order of a Functional Authority after the device or circuit requested has had reclosing capability disabled.

On devices with no SCADA control, a Hazard Tag shall be physically placed in close proximity to the control switch of the equipment beyond which the Hazard will be issued.

Tagging may be performed electronically on devices with SCADA control that have a positive indication of the Hazard being set. This is typically permissible on electronic relays, such as Schweitzer Engineering Laboratories (SEL) type relays. RE95 implemented with ice cube relays and Form 3 recloser controls are not sufficient for electronic tagging.

Truck Hold Off Tag

A Truck Hold Off Tag indicates that the position of a disconnecting or isolating device which it is intended to cover, must be held open. The position of the device shall not be changed under any circumstances unless the Truck Hold Off Tag is removed by the tag owner.

A Truck Hold Off Tag may be placed after equipment has been properly Opened. The presence of a Truck Hold Off Tag on an isolating device does not assure the person that the isolating device with which it is associated is completely isolated from known energy sources. It indicates only that the unit of equipment in question has been opened and is held from being operated. Multi-phase circuits protected by the same isolation point shall have all phases opened before a Truck Hold Off Tag can be placed.

The Truck Hold Off Tag should be placed in close proximity to the disconnecting device or operating handle. It should be in a location that is readily apparent to any Qualified Person that the equipment is Held Off.

The Truck Hold Off Tag can only be placed on in service equipment, rated 15kV or less phase to phase, that is outside of substations and not under the Jurisdictional Authority of Transmission Operations.

The Truck Hold Off Tag shall have the following information written on its face:

a. When applicable, the Outage Order to which the crew is assigned.
b. Crew Number or name of Contractor.
c. Name and phone number of the Qualified Person that placed the Truck Hold Off Tag.
d. Date and time the Truck Hold Off Tag was placed.

Use of a Truck Hold Off Tag is explained in Section 5 (Page 14) – Truck Hold Off Clearance.

Section 5 - Types of Worker's Protection Assurance

Definition of Worker's Protection Assurance

Worker's Protection Assurance (WPA) is a Functional Authority's assurance to a Qualified Person or crew that a given piece or section of equipment will be held in a required status for that person to safely perform their duties on that specific equipment.

The primary purpose of WPA is safety of personnel.

The conditions when WPA is required are:

A. When working on or with equipment that must be isolated from known electrical energy sources (de-energized) before it is safe to work.

B. When working on or with equipment connected to known electrical energy sources that must be in the operating control of the person who will work on the equipment.

C. When working on new facilities or introducing equipment to the system, and an electrical connection can be made to a known electrical energy source.

D. When working on or within dangerous proximity of energized conductors greater than 600V and a Hazard is required by safe work practices.

Clearance

Definition

When working on or with equipment that must be isolated from known electrical energy sources before it is safe to work, a Qualified Person may request a Clearance from the Functional Authority.

A Clearance is an assurance to the person issued that the equipment it covers has been properly isolated from all known electrical energy sources by the Functional Authority and that this isolation will be maintained while the Clearance is in effect.

This does not relieve the person of the responsibility of making prescribed tests or observations that the equipment is de-energized and safe to work on.

High Voltage testing such as ductor, power factoring, thumping and hi-potting are not allowed under a Clearance.

Use Of

Clearances are for the protection of persons who in the course of repair, maintenance, or construction work will handle or supervise the handling of equipment not safe to work on while energized or will come within unsafe working distances of such equipment.

Issued To

The Clearance is issued to a Qualified Person requiring protection in the course of their work and covers any number of persons working under their direction.

The person holding the Clearance must remain in the general area of the job.

If system conditions warrant, the Functional Authority may request the Clearance be released so that the line or equipment can be restored as soon as possible.

Persons Covered

A Clearance is issued to a single Qualified Person and will cover any number of persons working under that person's direction or leadership. If other persons are working on the same equipment but are not under the direction or leadership of the person holding the Clearance, then they too must obtain a Clearance to work on the equipment. Multiple Clearances and Out of Services may be issued on the same equipment simultaneously.

Time Limitation

The Clearance must be released at the end of the workday.

When the Clearance is released, the Functional Authority shall be notified if the work is complete and ready to be re-energized.

Grounds

Grounds may be installed and removed on the equipment it covers under a Clearance.

Installation of grounds is a Safe Work Practice and is separate from WPA. Grounds shall be placed in accordance with local safe work practices and safety policies. The Qualified Person releasing a Clearance and the Functional Authority shall confirm all grounds have been removed prior to re-energizing energy sources.

Clearance using a Truck Hold Off Tag

Definition

The Clearance using a Truck Hold Off Tag is for the protection of persons who in the course of repair, maintenance, or construction work will handle or supervise the handling of equipment rated 15kV or less phase to phase that is not safe to work on while energized or will come within unsafe working distances of such equipment.

Use Of

Jurisdictional and Functional authority may shift to the Qualified Person as it pertains to the use of a Truck Hold Off Tag where a Truck Hold Off Tag is permitted. A Truck Hold Off Tag is used for de-energized work, per the rules and definitions below.

This Authority is only valid while the Truck Hold Off Tag is placed and the equipment is de-energized. Under all other circumstances this equipment remains under the Jurisdictional and Functional Authority of the Distribution Control Office (DCO). Only a Clearance may be self-issued by virtue of the Truck Hold Off Tag. All other WPA must be issued by the Functional Authority (DCO). The Truck Hold Off Tag may not be placed for use with any other type of WPA.

Issued To

A Truck Hold Off Tag may be used by a Qualified Person to issue themselves a Clearance under the following circumstances:

a. Overhead and underground portions of single-phase or multi-phase radial taps that are outside of a substation and have only one isolation point.

b. Multi-phase circuits protected by the same isolation point shall have all phases opened.

c. All Truck Hold Off Tags must be placed under an outage order with the exception of a capacitor bank or a device that has no customers assigned.

d. On underground sections, the Qualified Person holding the self-issued Clearance using a Truck Hold Off Tag must verify on a circuit map that the cable does not tie to another source. The Qualified Person shall also physically check the last section(s) of cable to verify the cable is indeed a radial feed and does not tie to another source.

The Functional Authority (DCO) shall be notified of any abnormal system conditions that still exist when a Truck Hold Off Tag is removed and the circuit is re-energized. This would include any abnormal switching or customers still out.

Persons Covered

If there are multiple persons on the job, the immediate supervisor or leader of each crew shall place their own Truck Hold Off Tag. The supervisor or leader must direct the work performed with the person's knowledge and be responsible for the safety of all persons involved.

If two or more crews are working independently on the same lines or equipment, each crew shall independently comply with the requirements listed above, including each hanging their own Truck Hold Off Tags. Lines shall not be re-energized until all Truck Hold Off Tags have been removed.

The Qualified Person can only place a single Truck Hold Off Tag at any given time and can only place it for themselves.

The person holding the Clearance that was self-issued by virtue of the Truck Hold Off Tag must remain in the general area of the job.

Time Limitation

The Truck Hold Off Tag must be removed at the end of the workday by the person that placed the Truck Hold Off Tag.

No person can remove another person's Truck Hold Off Tag, with the following exception:

If a Truck Hold Off Tag is inadvertently left in the field without the crew being present, the DCO may resume Jurisdictional and Functional Authority using the following procedure:

a. The DCO may order the removal of the Truck Hold Off Tag only with explicit permission of the tag owner or their supervisor.
b. The entire zone covered by the Clearance using a Truck Hold Off Tag shall be patrolled before removing the tag and re-energizing the circuit.

Grounds

Grounds may be installed and removed on the equipment it covers under a Clearance that was self-issued under the rules of the Truck Hold Off Tag.

Installation of grounds is a Safe Work Practice and is separate from WPA. Grounds shall be placed in accordance with local safe work practices and safety policies. The Qualified Person or supervisor shall verify that all grounds have been removed prior to re-energizing from normal source voltage.

Out of Service

Definition

When working on or with equipment that must be isolated from known electrical energy sources before it is safe to work, a Qualified Person may request an Out of Service from the Functional Authority.

An Out of Service is an assurance to the person issued that the equipment it covers has been properly isolated from all known electrical energy sources by the Functional Authority and that this isolation will be maintained while the Out of Service is in effect.

This does not relieve the person of the responsibility of making prescribed tests or observations that the equipment is de-energized and safe to work on.

High Voltage testing such as ductor, power factoring, thumping and hi-potting are not allowed under an Out of Service.

Use Of

Out of Services are for the protection of persons who in the course of repair, maintenance, or construction work will handle or supervise the handling of equipment not safe to work on while energized or will come within unsafe working distances of such equipment.

Issued To

The Out of Service is issued to a Qualified Person requiring protection and covers any number of persons working under their supervision or direction.

The person holding the Out of Service does NOT have to remain in the general area of the job.

If system conditions warrant, the Functional Authority may request the Out of Service be released so that the line or equipment can be restored as soon as possible.

Persons Covered

An Out of Service is issued to a Qualified Person and will cover any number of persons working under that person's direction or leadership. If other persons are working on the same equipment but are not under the direction or leadership of person holding the Out of Service, then they too must obtain an Out of Service or Clearance to work on the equipment. Multiple Out of Services and Clearances may be issued on the same equipment simultaneously.

Time Limitation

The Out of Service does NOT need to be released at the end of the workday. It may remain in effect for as long as necessary.

When the Out of Service is released, the Functional Authority shall be notified if the work is complete and ready to be re-energized.

Grounds

Grounds may be installed and removed on the equipment it covers under an Out of Service.

Installation of grounds is a Safe Work Practice and is separate from WPA. Grounds shall be placed in accordance with local safe work practices and safety policies. The Qualified Person releasing an Out of Service and the Functional Authority shall confirm all grounds have been removed prior to re-energizing energy sources.

Restraint

Definition

A Restraint is an assurance to the Qualified Person issued that the equipment it covers has been properly isolated from all known electrical energy sources by the Functional Authority and that this isolation will be maintained without normal system voltage being applied while the Restraint is in effect.

It differs from a Clearance as it permits high voltage testing or high current testing under the control of or with the consent of the person to whom the Restraint is issued. This person is responsible for ensuring all other persons are in the clear when the equipment is energized by a test voltage.

Use Of

The Restraint is for the protection of the person or persons who will contact the normal conductors or test leads for making a high voltage test on a piece of equipment.

The Qualified Person to whom the Restraint is issued shall have control of the application of test voltages, in that permission from that Qualified Person MUST be obtained before voltage of any magnitude is applied. That Qualified Person should always be familiar with the status of the equipment and shall be responsible for all other persons working on that equipment. This includes personnel working under their direction and others working in proximity to the equipment under the Restraint to ensure they are protected against the application of test voltage.

The operator of the high voltage test equipment will direct the test and the connection of the test leads to the equipment under test. The operator of the high voltage test equipment will communicate directly with the person that has the Restraint. The high voltage test equipment operator may at no time apply test voltages until the holder of the Restraint has given the operator permission to proceed.

Only one Restraint may be issued at a time on a given piece of equipment and no other type of WPA may be issued on that piece of equipment while the Restraint is in effect.

Issued To

The Restraint is issued to the Qualified Person who will handle the connections of the high voltage test equipment to the equipment being tested, or their supervisor if the supervisor specifically directs the person in the person's presence. In cases where several persons will contact the conductors of the equipment or test leads, a Qualified Person or supervisor shall be designated to act as the coordinator on the job, and that person shall obtain the Restraint.

The person holding the Restraint must remain in the presence of other persons while they are depending on that person's Restraint for their protection.

If system conditions warrant, the Functional Authority may request the Restraint be released so that the line or equipment can be restored as soon as possible.

Persons Covered

All persons working on the equipment and conductors covered by the Restraint will depend upon the person to whom the Restraint was issued for their protection.

Time Limitation

The Restraint must be released at the end of the workday.

Grounds

Grounds may be installed and removed on the equipment it covers under a Restraint.

Installation of grounds is a Safe Work Practice and is separate from WPA. Grounds shall be placed in accordance with local safe work practices and safety policies. The Qualified Person releasing a Restraint and the Functional Authority shall confirm all grounds have been removed prior to re-energizing energy sources.

Local Control

Definition

The Local Control, issued by the Functional Authority, permits a Qualified Person to operate or direct the operation of a section of circuit or piece of equipment. This also gives the Qualified Person the assurance that no operations will be performed on the section of circuit or equipment covered by the Local Control unless requested or personally approved by them.

Use Of

The Local Control is for the protection of the person who, during the person's work, needs to energize equipment from its normal energy sources for testing, running motion of equipment, or for other purposes necessary for the performance of that person's job.

A Local Control permits the energizing or de-energizing of lines or equipment from Normal Source Voltage.

Use of an Underground Cable Tester (UCT) or phasing sticks under a Local Control for the purpose of troubleshooting faulted underground cables is permitted but its safe use is the sole responsibility of the WPA holder.

The Local Control permits a person to operate or direct the operation of equipment within a certain established or prescribed limit, as determined by that person's qualifications, the nature of the equipment, verbal or written instructions governing the job, or by verbal or written instructions by the Functional Authority. No operations may be performed that are not previously agreed upon with the Functional Authority. The Functional Authority may refuse to issue a Local Control or demand the release of a Local Control at any time.

Hold Off Tags cannot be placed or removed under a Local Control, unless ordered by the proper Functional Authority as only the proper Functional Authority can order Hold Off Tags placed or removed.

Only one Local Control may be issued on a given piece or section of equipment and no other type of WPA may be issued on that equipment while the Local Control is in effect.

Issued To

The Local Control is issued to a Qualified Person or supervisor requiring this protection during the course of their work. The person desiring a Local Control must inform the Functional Authority of the reason for the request and whether the equipment needs to be energized or isolated from energy sources.

The person holding the “Local Control” must remain in the general area of the job.

If system conditions warrant, the Functional Authority may request the Local Control be released so that the line or equipment can be restored as soon as possible.

Persons Covered

If there are several persons on the job, the supervisor or the leader of the group should obtain the Local Control. The supervisor or leader must direct the work performed with the person's knowledge and be responsible for the safety of all persons involved.

Time Limitation

The Local Control must be released at the end of the workday.

Grounds

Grounds shall NOT be installed on the equipment it covers under a Local Control. Therefore, work on equipment, which according to safe work practices must be performed grounded, shall NOT be performed under a Local Control.

Hazard

Definition

The Hazard is an assurance to the person issued that the device or circuit requested shall not be reclosed after it has automatically opened until the Functional Authority has contacted all persons who have been issued Hazards and determined life or property will not be endangered by reclosing.

A Hazard is not a guarantee that equipment will be de-energized upon contact. Fault currents must be sufficient to cause operation of the device or circuit breaker.

For a work location protected by a fuse, if a Hazard is needed, the upstream protective device capable of tripping and being reclosed must be disabled and tagged for purpose of issuing a Hazard for that work location.

Use Of

The Hazard is for the protection of persons who will work on energized high voltage equipment or within hazardous proximity of such equipment.

No other WPA can be issued on that section of line, cable, or piece of equipment while the "Hazard" is in effect.

Multiple Hazards may be issued beyond the same device simultaneously. Only one Hazard Tag is required per Functional Authority issuing Hazards.

Issued To

The Hazard is issued to the Qualified Person, or the person's immediate supervisor on the job, requiring this protection in the course of that person's work.

The Qualified Person who has the Hazard, which is intended to cover the persons under that Qualified Person's direction or leadership, must remain in the presence of the persons while they are depending on that Qualified Person's Hazard for their protection.

If system conditions warrant, the Functional Authority may request the Hazard be released so that the line or equipment can be restored as soon as possible.

Persons Covered

If there are several persons on the job, the immediate supervisor or leader of the group can obtain the Hazard, or each individual person can obtain a Hazard.

Time Limitation

The Hazard must be released at the end of the workday.

Section 6 – Procedures

Procedure for Requesting WPA from Functional Authority

A. Requests for switching and WPA shall be made to the Functional Authority (DCO or Transmission Operations) in advance of the required need by date. The request will allow for adequate time for the Functional Authority to evaluate the request with respect to system conditions, Reliability Coordinator requirements, and other workload.

B. Before making a request for switching and/or WPA, the requestor shall check the job site and all necessary drawings to determine:
   1. What circuit(s) and/or equipment is being requested?
   2. What is the work to be performed?
   3. What is the zone of protection requested? Are any adjacent circuits or equipment needed?
   4. What type of WPA is needed?
   5. What is the approximate Date, Time, and Duration the WPA will be needed?
   6. If customers will be outaged as a result of the requested switching, has the requestor communicated and coordinated the outage with the customer?

Procedure for Obtaining WPA from Functional Authority

To obtain the requested WPA all parties shall:

A. Use Three-Way Communication with the Functional Authority (DCO or Transmission Operations).

B. Record at a minimum the following items in the Switching Order Book:
   a. Log the Distribution System Operating Supervisors name (DSOS), or Transmission Dispatchers name (TD).
   b. The switching order number.
   c. The type of WPA to be issued by the DCO or Transmission Operations.
   d. The section of line or equipment included in the WPA. This shall include all switch numbers, substation names, circuits, and any pertinent location information that is associated with the WPA to be issued.

C. After both parties agree all corresponding information is correct, the Functional Authority (DCO or Transmission Operations) will then issue the WPA.

D. After accepting WPA, log the WPA issued time in the Switching Order Book.

Procedure for Releasing WPA to the Functional Authority

When the portion of the job that has WPA issued is complete, the responsible person shall:

A. Notify all applicable personnel that the WPA is being released.
B. Verify that all affected persons are in the clear.
C. Call the Functional Authority (DCO or Transmission Operations) from the Job Site. Utilizing three-way communication:
    1. Identify yourself, type of WPA, the switching order number, the section of line or equipment you are releasing, and indicate that affected persons are in the clear.
    2. Give information concerning the circuit or equipment the Functional Authority will need, including any changes made. Such as:
        a. What condition is the line or piece of equipment in?
            i. Abnormally open or closed equipment?
            ii. Cut or spliced conductor that results in circuit topology changes?
            iii. Has any equipment changed that could affect the rating of the equipment being returned to service?
            iv. Are you aware of any work remaining by you or any other workgroup?
            v. Is the equipment ready to be energized?
            vi. Will phasing be necessary?
        b. Notify Functional Authority (DCO or Transmission Operations) that all grounds have been removed or if some grounds are still on the line.
        c. Will WPA be needed again?
        d. Any other pertinent information?
    3. The Functional Authority (DCO or Transmission Operations) will read back the information you have given so you are satisfied that the Functional Authority (DCO or Transmission Operations) has, in fact, understood all specific information.
    4. After all the above has been completed and both parties agree, the Functional Authority (DCO or Transmission Operations) will take back the WPA.

Failure to Obtain or Release WPA

When scheduled WPA is set up, it is expected the Qualified Person will pick up the WPA at the requested date and time. If the Qualified Person does not pick up the WPA in a timely manner, the Functional Authority (DCO or Transmission Operations) will contact the Responsible Party who arranged the WPA and/or their immediate Supervisor.

It is expected that the Foreman or Supervisor will contact the Qualified Person and instruct them to call for their WPA, or they will inform the Functional Authority (DCO or Transmission Operations) that plans have changed and the WPA is no longer needed. If the WPA is no longer needed, the Functional Authority (DCO or Transmission Operations) may restore the circuit.

All Clearances, Restraints, Hazards, and Local Controls must be released before leaving the jobsite. If these WPA are not released, it is the Functional Authority's (DCO or Transmission Operations) responsibility to contact the person holding the WPA. If unsuccessful, their supervisor will be called. The supervisor can release the WPA **only** after contacting the Qualified Person or visiting the job site.

Energizing New Distribution Primary Facilities

The DCO (Functional Authority) will require field operations to adhere to the following protocol prior to energizing new facilities:

1. A Switching Order to energize the new facilities shall be requested and approved prior to scheduling. A Truck Hold Off Tag cannot be used for this purpose.
    - A crew may tap an overhead circuit with verbal permission at the DCO's discretion.
2. A one-line diagram must be provided to the DCO.
3. All equipment that is being released for service shall be verified ready to be energized, including all cable, splices, terminations, facility labeling, cable tagging, and free of grounds.
4. The crew must call the DCO for switching orders or a Local Control prior to energizing new facilities.

Energizing New Transmission Facilities

Transmission Operations (Functional Authority) will require field operations to adhere to the following protocol prior to energizing new facilities:

1. A Switching Order or Starting Procedure to energize the new facilities shall be requested and approved prior to switching.
2. WPA cannot be issued until the new equipment has been released to the Functional Authority (Transmission Operations) in a formal process by the Starting Supervisor:
    a) **Released for WPA** only - The equipment is connected to system, but additional work needs done before releasing for operations. Can be isolated by disconnects and issued WPA, disconnects can have Hold Off Tags placed on them.
    b) **Released for Operations** - The equipment is ready for operation and has been verified to operate as designed.
3. The crew must call Transmission Operations for switching orders or to receive a Local Control prior to energizing new facilities.

Section 7 – Definitions

Alternate Energy Source: An energy source that acts as a backup or alternative to the normal power supply via the use of a normal open device. This ensures a reliable power supply in the event the normal source or feeder may be unavailable.

Ameren Electric Power Generation Station Jurisdiction: Any generation station equipment that is not under the Jurisdictional Control of the Distribution Control Office or Transmission Operations.

Bulk Electric System (BES): The critical infrastructure involved in the transmission of electrical energy over long distances. BES typically includes transformers, substations, and associated components that play a central role in efficiently transmitting high-voltage electrical power within the Transmission and Distribution System.

Close Proximity: As applies to tagging, close proximity is a near or immediate distance that will ensure the tag is easily visible and accessible to any Qualified Person dealing with the associated component; the Tag should be placed in a manner where its presence is readily apparent, facilitating clear communication and awareness of the status of the associated component.

Distribution System Operating Supervisor (DSOS): Individual responsible for overseeing and managing the safe and efficient operation of the electric system that the DCO is designated as Jurisdictional and Functional Authority.

Energy Delivery System: The facilities and equipment responsible for transporting electricity, ensuring it is reliable and efficient delivery from the source to end-users. This includes power lines, substations, transformers, and associated equipment crucial for maintaining a secure and continuous energy supply.

Functional Authority: The Functional Authority specifically performs or directs a qualified person to perform switching operations as directed or authorized by the Jurisdictional Authority. (See Section 2 – Operating Authorities)

High Current Testing: Electrical testing that utilizes a high amperage test current.

High Voltage Testing: Electrical testing that utilizes test voltage more than 600V, such as but not limited to, power factoring, thumping, transformer turns ratio testing, and hi-potting, etc.

Jurisdictional Authority: The Jurisdictional Authority is in charge of and responsible for directing and coordinating the operation of system equipment. This includes complete authority of system configuration, switching, voltage control, equipment loading, and any other activities pertinent to proper operation of the Energy Delivery system. In most cases, this is the representative as delegated by the entity that owns the equipment. (See Section 2 – Operating Authorities)

Known Energy Source: Any identified and acknowledged potential source of energy within a specific section of equipment or system.

Network Protector: A specialized protective device located on the low voltage side of a Distribution Network Transformer. Network Protectors can be operated manually or automatically to isolate the network secondaries from the transformer. These secondary networks are in downtown Bloomington, Decatur, Peoria, and St Louis.

Normal Source Voltage: Voltage created by the utility company system.

Other Authority:
Another Functional Authority, Qualified Person, or contractor that may receive a Hold Off at the discretion of the Functional Authority.

Qualified Person: A Qualified Person is defined as one who is trained and knowledgeable in WPA and in the construction and operation of the electric power generation, transmission, and distribution equipment involved in his or her job, along with the associated hazards. This qualification ensures that the person possesses the requisite expertise to execute their responsibilities safely and aligns with the standards established for person protection.

Non-Electrical persons may be trained to work within proximity to electric power generation, transmission, and distribution equipment. These persons must have the following minimum training:

a. Know what is safe to touch and what is not safe to touch in the specific areas they will be working.
b. They must know the maximum voltage of the area in which they will be working.
c. They must know the minimum approach distances for the maximum voltage of the area in which they will be working.
d. They must be trained in the recognition and proper use of protective equipment that will be used to provide protection for them and in the work practices necessary for performing their specific work assignments within the area they will be working.
e. Until these persons have demonstrated proficiency in the work practices involved, they are considered to be persons undergoing on-the-job training and must be under the direct supervision of a Qualified Person at all times.

Reliability Coordinator: The entity responsible for the Reliable Operation of the Bulk Electric System, has the Wide Area view of the Bulk Electric System, and has the operating tools, processes, and procedures, including the authority to prevent or mitigate emergency operating situations.

RE95: A relay used on the Ameren Missouri, Alton, and E St Louis systems that provides the DSOS the ability to remotely enable or disable certain relays that are used in switching protective devices in the field, such as 43A/M selector switch and 79 auto reclosing relays.

Safe Work Practices: Established and recognized company policies, procedures, methods, and behaviors that ensure the well-being and safety of the person while performing their assigned tasks. These practices encompass adherence to safety guidelines, proper use of personal protective equipment, compliance with operational protocols, and the application of precautionary measures to mitigate potential risks.

Stored Energy: Latent potential stored within the system that could manifest in the form of electrical, mechanical, chemical, or thermal energy.

Switching: The controlled process of manipulating electrical circuits or equipment to redirect the flow of electrical power. It may involve opening, closing, or changing the configuration of equipment to isolate specific sections for maintenance, repairs, or other operational requirements.

Switching Order Book: An official document used to record and track operating orders related to switching procedures. The Qualified Person receiving the orders uses this book to document the details of the switching order. These recorded orders serve as a reference, aiding in communication verification and ensure that the executed tasks align with the instructions given by the Functional Authority. At the discretion of the Functional Authority, a copy of the switching orders may be sent to the Qualified Person for use in lieu of the switching order book.

Test Voltage: Any Voltage that is not normal system voltage. When normal system voltage is used to test equipment, it is not considered test voltage.

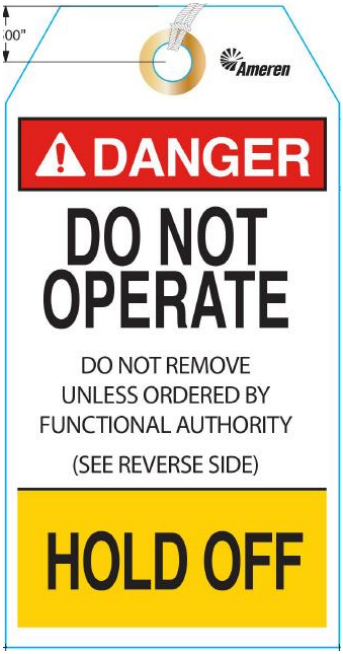
Three-Way Communication: A structured exchange of information between the Functional Authority and a Qualified Person. This requires the Functional Authority to convey switching orders, issuance of WPA, and release of WPA, clearly and concisely to the Qualified Person. The recipient then repeats the information back. The Functional Authority will then acknowledge the response matches the orders given. If there are any discrepancies, the process will be repeated until the response is correct. Three-Way Communications should always be conducted over a recorded line.

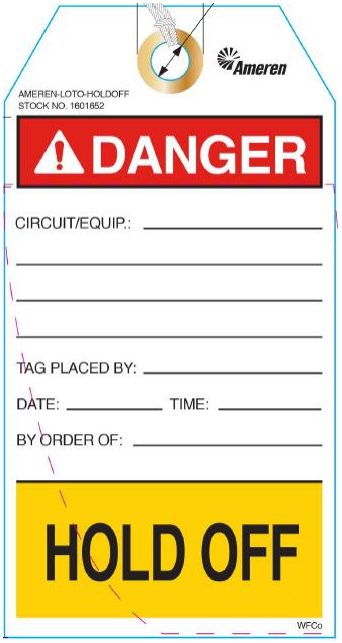
Underground Cable Tester (UCT): A self-contained one-piece device affixed to a live line tool that can create a voltage sufficient to test the integrity of a cable and indicate if it is faulted. Any UCT devices shall be approved in writing by the Ameren Distribution Standards Group.

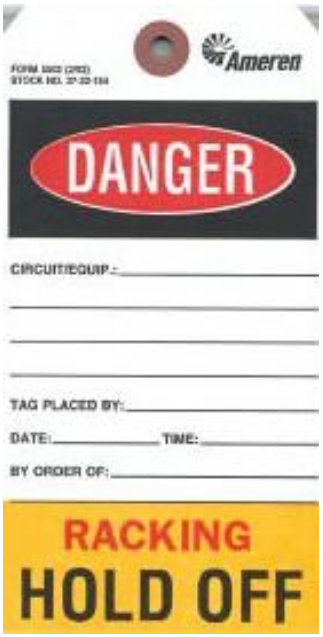
Worker's Protection Assurance: See Section 5

Transmission Operations: Transmission Operator is responsible for safe and reliable operation of the Bulk Electric System.

Section 8 – Tags



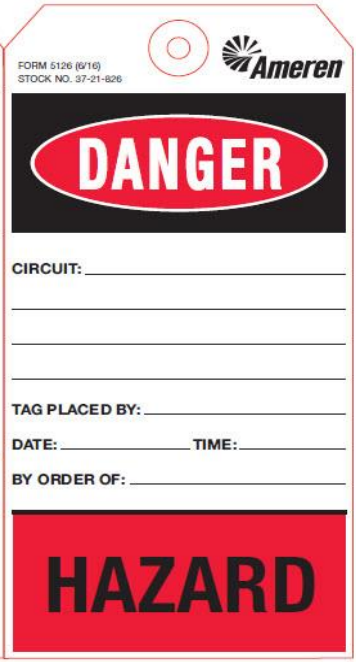





5"
Ameren
DANGER
DO NOT OPERATE
DO NOT REMOVE UNLESS ORDERED BY FUNCTIONAL AUTHORITY
(SEE REVERSE SIDE)
TRUCK HOLD OFF


Ameren
AMEREN-TAG-TRUCK
STOCK NO. 3722116
DANGER
OUTAGE ORDER #
CREW #
TAG PLACED BY:
PHONE #
DATE: TIME:
Use of the Truck Hold Off on lines <15kV Ph-Ph:
a. For overhead portions of single or multi-phase radial taps having a single isolation point (i.e. taps that do not tie between feeders.) The single isolation point may be any of these devices: fuse, solid blade switch, jumpers
b. Underground portions of single or multi-phase radial taps having only a single isolation point (i.e. taps that do not tie between feeders.) The single isolation point may be any of these devices: fuse, solid blade switch, jumpers or elbows.
c. Multi-phase isolation points shall have all phases isolated
d. For overhead transformer or transformer bank
e. Truck Hold Off for fused capacitor bank does not require an outage order
TRUCK HOLD OFF
WFCo


Ameren
DANGER
RECLOSING DISABLED
DO NOT RECLOSE OR REMOVE THIS TAG UNLESS ORDERED BY FUNCTIONAL AUTHORITY
(SEE REVERSE SIDE)
HAZARD


FORM 5126 (6/16)
STOCK NO. 37-21-826
Ameren
DANGER
CIRCUIT:
TAG PLACED BY:
DATE: TIME:
BY ORDER OF:
HAZARD

WPA Quick Reference Guide

TYPE OF WPA	ISOLATION	TIME LIMITATION	LOCATION LIMITATION	TAGS USED	OTHER WPA ALLOWED
CLEARANCE USING A TRUCK HOLD OFF TAG	ISOLATED FROM ALL KNOWN ENERGY SOURCES	END OF WORKDAY	ON THE JOBSITE	TRUCK HOLD OFF TAG	CLEARANCE USING A TRUCK HOLD OFF TAG
CLEARANCE	ISOLATED FROM ALL KNOWN ENERGY SOURCES	END OF WORKDAY	ON THE JOBSITE	HOLD OFF TAG RACKING HOLD OFF TAG	CLEARANCE OUT OF SERVICE
OUT OF SERVICE	ISOLATED FROM ALL KNOWN ENERGY SOURCES	NONE	NOT APPLICABLE	HOLD OFF TAG RACKING HOLD OFF TAG	CLEARANCE OUT OF SERVICE
LOCAL CONTROL	NONE (MAY BE ENERGIZED BY NORMAL SYSTEM VOLTAGE OR UCT)	END OF WORKDAY	GENERAL AREA OF THE JOB	NOT APPLICABLE	NONE
RESTRAINT	ISOLATED FROM ALL KNOWN ENERGY SOURCES TEST VOLTAGE MAY BE APPLIED	END OF WORKDAY	ON THE JOBSITE AND REMAIN IN THE PRESENCE OF OTHER PERSONS WORKING UNDER RESTRAINT	HOLD OFF TAG RACKING HOLD OFF TAG	NONE
HAZARD	NORMAL SOURCE VOLTAGE	END OF WORKDAY	ON THE JOBSITE AND REMAIN IN THE PRESENCE OF OTHER PERSONS WORKING UNDER HAZARD	HAZARD TAG	HAZARD