

Individual Capacitor De-Energize / Isolate 2023

Mean Time = 10 minutes ~ Dead Time = 12 minutes

Event Description: This event will simulate the proper procedure for de-energizing and isolating a unit on a fixed, 3-phase capacitor bank. Pole will be 40' with neutral positioned below capacitor rack. Linemen will follow proper safety procedures for working on capacitors.

Basic Outline:

- The lineman will have a maximum of 5 minutes for setup.
- The load break cutouts above the capacitor bank will be in closed position at the start of the event.
- Time starts upon judge's "GO"
- The lineman will open each cutout from the ground with an extendo stick.
- The lineman will then clearly state to the judge the proper time required to allow capacitors to discharge.
- After previous steps, the pole may be climbed, taking handline as they go.
- Lineman will pull shotgun stick and ground chain to themselves with handline to properly "short out" all 3 capacitor units and remove B phase stinger from primary.
- Lineman will remove primary stinger wire from bottom of B-phase cut out. He will then state, "capacitor in the clear."
- Lineman will be required to lower the shotgun stick and ground chain with the hand line.
- Time stops when previous steps are completed, and lineman declares "capacitor in the clear."

Set-up Notes:

- 8' cross arm with load-break cut outs will be mounted at lower gain hole. There will be no primary wire installed on this event.
- Top hanger for capacitor rack will be 4' below cut out arm.
- Neutral will be installed approximately 1' below bottom of capacitor rack.
- Neutral will be covered with 2-line hoses and 1 split blanket.

Possible Deductions :

1. Infractions of any rules listed in the General Rules.
2. Failure to state proper time for capacitor discharge (2 pts.)
3. Wearing belt or hooks while operating extendo stick (2 pts.)
4. Not opening cutouts with ring on cutout door (2 pts per occurrence)
5. Failure to raise and lower shotgun stick and ground chain with hand line (2 pts.)
6. Contact with uncovered neutral (2 pts.), or leaving neutral conductor uncovered (2 pts.)
7. Failure to lower shotgun stick and ground chain before declaring work complete (2 pts.)
8. Failure to wear rubber gloves and sleeves as stated (10 pts.)

Other Notes / Reminders:

1. Time stops while lineman is on the pole after B-phase capacitor is declared in the clear, however, lineman will continue to be judged until he reaches the ground.
2. Shotgun stick & ground chain may be tied on handline during set up time.
3. Neutral connection for ground chain may be attached with a gloved hand.
4. Gloves and sleeves must be worn while climbing pole – and while working during timed portion of event. The extendo stick may be operated with rubber gloves or leather gloves, but not bare-handed.

Tools furnished by Lineman

- 1 Extendo Stick
- 1 Shotgun Stick
- 1 Ground Chain
- 1 Hand Line

Individual Hurt-Man Rescue 2023

Mean Time = 4 minutes ~ Dead Time = 6 minutes

Event Description: This event is designed to demonstrate the skill of rescuing an injured man from a transformer pole.

The pole will be a 40-foot, A-1 with 4-foot spacing. It will have a transformer and fiberglass stand-off bracket (M.I.F. bracket) with fused cut-out (see attached diagram G 1.5). There will not be a triplex service or grounds attached to transformer. A manikin will be placed with safety between transformer hangers, positioned on opposite side of pole from transformer. A shotgun stick will be hanging on the neutral wire.

The lineman's gear (hooks, belt, and rubber gloves) will be located outside of the event circle. No part of the fall protection belt will be allowed on the pole prior to time starting.

The judge, upon getting the ready signal from the climber, will say "ready, set, go". The time will begin upon "go".

The lineman will then bring their tools within the marked circle around the pole and adorn the climbing tools and ascend the pole.

The lineman will open the cut-out with the provided 8' shotgun stick prior to approaching the manikin. The Buckingham Ox-Block will be used for the rescue and will be provided. The becky of the Ox block will be hanging above neutral spool. The position of the block (left side or right side of the pole) may be placed where the competitor wishes during the 5-minute set-up time. The handline must be attached to the manikin using 3 half hitch knots. The manikin's safety will be cut (at the marked insert) by the lineman. The manikin will be lowered to the ground in a controlled manner. The time will stop when the manikin is on the ground and the handline is slack.

Basic Rules:

1. The event is simulated energized. This means that the linemen will use rubber gloves during this event.
2. The rubber gloves will be in a snapped (or Velcro), closed bag upon the start of event.
3. Time stops when manikin is on the ground and the handline is slack, but judging continues until participant leaves event area.

Possible Deductions (10 pts)

1. Arm of the manikin comes out of the tie made by the climber.
2. Manikin falls freely to the ground.

Possible Deductions (2 pts)

1. Infractions of any rules listed in the General Rules.
2. Failure to have tool belt, glove bag, or hooks properly positioned before starting event.
3. Failure to properly open cutout before approaching manikin.
4. Improper use of fall protection belt/safety.
5. Knife not sheathed or folded. Use of an open tool pouch is not acceptable.
6. Failure to call "head-ache" when dropping the rope or the sheave.
7. Failure to tie the rope around the manikin's chest.
8. Failure to tie the manikin off with three half-hitches.
9. Failure to make 2 wraps of rope on the friction bar of the Ox Block.
10. Failure to cut the safety at the indicated inserts (between buckles).
11. The lineman cutting toward his own body.
12. Failure to lower the manikin in a controlled fashion. The manikin cannot hit the ground hard. (Hitting the ground too hard is the judge's call. It will be based on the question, "*Would the impact produce injury to a real victim?*")

Team Hurt-Man Rescue 2023

Mean Time = 4 minutes ~ Dead Time = 6 minutes

Event Description: This event will be a three-man team event with all three contestants participating at the same time and at the same station. The pole will be a 40-foot, A-1 with 4-foot spacing. It will have a transformer and fiberglass stand-off bracket (M.I.F. bracket) with fused cut-out (see attached diagram G 1.5). There will not be a triplex service or grounds attached to transformer. A manikin will be placed with safety between transformer hangers, positioned on opposite side of pole from transformer. Two judges will be assigned to the event. One judge will be the initial responder to the emergency call and the other will run the stopwatch and observe the team for infractions. Both judges can deduct points from a team.

The lineman's gear (hooks, belt, and rubber gloves) will be located outside of the event circle. No part of the fall protection belt will be allowed on the pole prior to time starting.

The judge, upon getting the ready signal from the climber, will say "ready, set, go". The time will begin upon "go".

The lineman will then bring their tools within the marked circle around the pole and adorn the climbing tools. One groundman will simulate calling for emergency help using a prewritten script provided. An extendo stick (provided by the competing team) will be lying on the ground outside of the event circle. One groundman will use the extendo stick to open the cutout using the ring in the barrel before anyone has made any un-insulated contact with the handline or pole. Both the handline and pole are considered to be a different potential until the cutout is open. A shotgun stick will be locked in the eye of the high side jumper hot line clamp. The high side jumper will be connected to the primary, indicating that the cutout is still energized. After the cutout is open the climbing lineman will ascend the pole and lift the high side jumper using the provided shotgun stick, prior to lowering the manikin.

The becky of the Ox-Block will be hanging above the neutral spool. The Buckingham Ox-Block (which will be provided) will be used for the rescue. The position of the block (left side or right side of the pole) may be placed where the competitor wishes during the 5-

minute set-up time. The handline must be attached to the manikin using 3 half hitch knots. The manikin's safety will be cut (at the marked insert) by the climber. The manikin will be lowered to the ground in a controlled manner. The time will stop when the manikin is on the ground and the handline is slack.

Once the manikin is on the ground, a groundman will be judged while simulating initial CPR actions.

Basic Rules:

1. The event is simulated hot. This means that the climber will use rubber gloves.
2. The rubber gloves will be in a snapped (or Velcro), closed bag upon start of the event.
3. Time stops when manikin is on the ground and the handline is slack, but judging continues until participants leave event area.

Possible Deductions (10 pts)

1. Arm of the manikin comes out of the tie made by the climber.
2. Manikin falls freely to the ground.

Possible Deductions (2 pts)

1. Infractions of any rules listed in the General Rules.
2. Failure to read the provided Mayday script within the designated area.
3. Failure to have tool belt, glove bag, or hooks properly positioned before starting event.
4. The climber ascending the pole before the cutout is opened by a groundman.
5. The groundman touching the extendo stick before time begins.
6. The climber rescuing the manikin before removing the jumper with the provided shotgun stick.
7. Knife not sheathed or folded. Use of an open tool pouch is not acceptable.
8. Failure to call "head-ache" when dropping the rope or the sheave.

9. Failure to tie the rope around the manikin's chest.
10. Failure to tie the manakin off with three half-hitches.
11. Failure to make 2 wraps of rope on the friction bar of the Ox Block.
12. Failure to cut the safety at the indicated inserts (between buckles).
13. The lineman cutting toward his own body.
14. Failure to lower the manakin in a controlled fashion. The manikin cannot hit the ground hard. (Hitting the ground too hard is the judge's call. It will be based on the question, "*Would the impact produce injury to a real victim?*")
15. Failure by ground man to initiate CPR actions.
16. Lineman climbing down while team member within pole circle.

Furnished Equipment:

1. Handline with Ox-Block

MayDay Script (a copy will be provided)

Groundman: "MayDay, MayDay...Truck 2033 to the dispatcher...We have a man down emergency."

Judge: "Dispatch to truck 2033...I understand you have a man down emergency."

Groundman: "Truck 2033...That is correct. We are located at 1630 Lyndon Farm Ct. and have a man down. We are beginning pole top rescue and need an emergency medical team dispatched."

Judge: "I understand that you are at 1630 Lyndon Farm Ct. and have a man down and need medical assistance."

Groundman: "Truck 2033...That is correct, we need immediate medical assistance."

Judge: "Medical assistance is on its way. Over and out."

Team Event 2023

Transformer and Streetlight Change

Mean Time = 13 minutes ~ Dead Time = 18 minutes

Event Description: This event consists of changing out a transformer and a streetlight on adjacent poles. Poles will 40' A-5 for the primary pole and 30' for the streetlight pole. On the transformer pole, the team will be required to open a fused cut-out, remove hot line clamp, install cover-up and transformer gin, remove wire connections, and lower the transformer to the ground. On the streetlight pole, the team will be required to remove wire connections, streetlight and lower it to the ground. After the transformer and/or streetlight reach the ground, they shall be raised back into place and re-installed to original configuration.

Basic Outline:

1. Teams will have a 5-minute set-up time.
2. Poles must be sounded with a hammer prior to start of event.
Can be done during setup time.
3. All tools and material will be located on a tarp outside of the event circle.
4. Teams may start with climbing tools on.
5. Time starts upon judge's signal of ready, set, go.
6. This event will be simulated as a single phase 7.2 kV line with #6 duplex between the transformer and streetlight pole.
7. The pole with the transformer may not be climbed until the fuse has been opened, while the pole with the streetlight may be climbed at any time after the event has started.
8. Once the fused cut-out is open, the climber may ascend the transformer pole.
9. The hot line clamp shall be removed with a shotgun stick while positioned below the neutral.
10. A hard line cover shall be installed with a shotgun stick prior to installing transformer gin.

11. Once the hot line clamp is removed, the climber shall install a transformer gin and use a set of rope blocks to remove and lower the transformer to the ground.
12. Once the transformer has contacted the ground, it shall be raised back up and re-installed.
13. After removing rigging equipment and hard cover, the hot line clamp shall be re-installed with a shotgun stick while positioned below the neutral.
14. Once re-installed, the climber shall descend to the ground.
15. Once the event has started, a climber may ascend the streetlight pole at any time but may not disconnect any wires until the transformer fuse has been opened.
16. Once the fuse is open, the climber shall remove the streetlight from the pole and lower it to the ground.
17. Once the streetlight has contacted the ground, it shall be raised back up and re-installed. Wire connections shall not be made unless the transformer cut-out is open.
18. After the climber on the transformer pole has reached the ground and final connections have been made on the streetlight, the transformer fused cut-out shall be closed.
19. Time stops when the cut-out is closed and both climbers have reached the ground.

Possible Deductions:

1. Infractions of any rules listed in the General Rules
2. Closing cutout with lineman on pole. (2pts.)

Tools and materials provided by the Team ;

1. Hot sticks (extend-o & 8' shot gun stick)
2. All special tools will be provided (transformer gin, rope blocks, and cover-up).
3. Rubber gloves shall be worn for the entire event.
4. Climbing poles shall be sounded with a hammer and can be completed during the set-up time.
5. Time starts when the judge signals "GO".
6. Climbers can have gear on but not be strapped to the pole until the event starts.
7. The transformer pole climber may not ascend until the fused cut-out is open.
8. The neutral will be treated as energized. Incidental contact with a gloved hand will be allowed, but not allowed for making wired connection.
9. Time stops when the fused cutout is closed and both climbers are on the ground.
10. All tools and material not in use must remain on the tarp.

