SAFETY BULLETIN IBEW 104 OSHE

DECEMBER 1, 2022

TEMPORARY INSULATED JUMPERS

There has been a concerning trend happening throughout our jurisdiction that needs to be addressed with all our field level line crews, specifically distribution crews. This trend is not limited to one contractor or one geographical area but across all our contractors and entire jurisdiction and demands your attention.

The issue and area of concern is the use of 600-volt weather protected tap wire being utilized for “jumping“ existing taps in the process of moving primary conductors significant distances for the purposes of “out rigging“ or transferring. This tap wire is being used instead of, or in place of an insulated rated Mac or Jumper .

When this issue has been addressed in the field, there have been some common responses from the crews as to why they are choosing not to use a rated “Mac“:

Continued…

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- "We only have 4Ø Macs and the conductor is number 2 or number 6 and the weight of the Mac may tear down the primary."

  *Macs can be supported by insulated means from the structure to reduce the overall load imposed on the primary conductor.

  *Macs can be ordered in numerous conductor sizes and head configurations that reduce its overall weight.

- The conductor is in poor condition (broken strands , numerous pickles) and the weight of an insulated Mac could tear down the primary conductor

  *If the weight of the proper insulated Mac raises this level of concern, an all stop should be called, and employer leadership should work with the host utility to determine an alternative method . Can this work be performed de-energized or is there an alternative work method that addresses the specific identified hazards?

Continued…

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- "The smaller sized Macs were removed from the trucks because of an incident where an undersized Mac was used that exceeded its ampacity and caused an outage."
  - * This is an example of a training issue and not an issue with the tool itself. The effort to solve the issue has only created a new hazard and eliminated a perfectly useful tool.
- "The insulated Macs are rated but not tested so we cannot rely on their insulating value and would have to cover them, and this would only make them heavier."
  - * The insulated Macs are made with a specific KV rating the same as our insulated line hose and can be treated the very same way. After your visual inspection, and in an energized zone, your minimum approach is now the same as line hose: "avoid contact". To better explain this, if you have a phase covered with line hose and it needs to be placed on a cross arm, there should be an insulated tested blanket between the arm and line hose, the same would be true for a rated Mac .

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The practice of using tap wire in place of insulated rated Macs presents numerous hazards. The most troubling issue that this creates is a primary energized conductor in the work zone that is extremely difficult if not impossible to properly cover and protect ourselves from. Attached are some photos from manufacturers identifying some of there specific characteristics as well as pictures showing tap wire being used and the hazards they present .

Many of these topics are presented and discussed in the new classes being offered by Jim Foster and Bart Jones . I would encourage any member or contractor to reach out us and take advantage of the training reimbursement program and utilize these classes .

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EXAMPLE 1

Long non insulated tap.

Difficult To cover

MAD from grounded pole not being observed

Entire circuit exposure for wire pull.

The process of moving the conductor to its current position created an uncontrolled coil of uninsulated conductor moving dynamically

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EXAMPLE 2

Multiple extended cutout tap wires that are difficult to cover.

Entire Circuit exposure for wire pull

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EXAMPLE

Coils of energized tap wire left on high side of cutouts in order to move conductor down to permanent position without having to remove cutout taps and install a properly Rated temporary insulated jumper.

Difficult to cover and maintain MAD.

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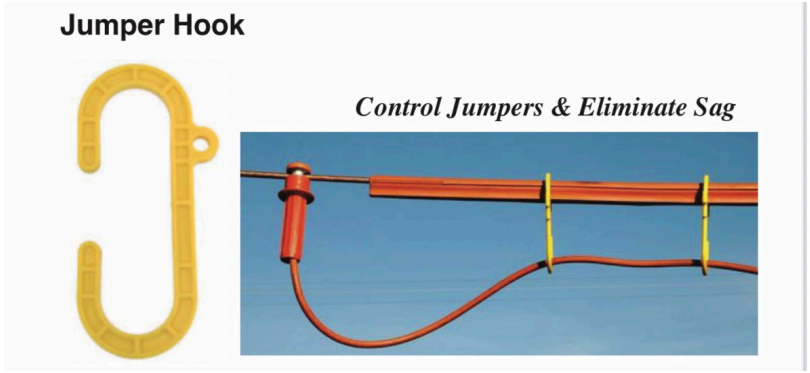
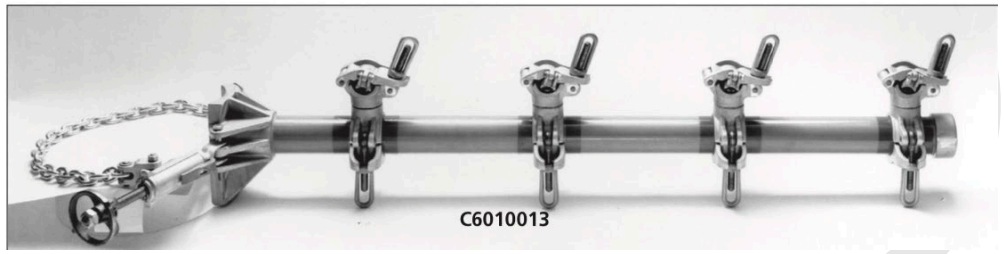
EXAMPLES FOR SUPPORTING WEIGHT

These are a few examples of ways to support temporary insulated jumpers on conductors or structures/ arms. Other methods with common truck stock/tools are available: Hot Links, polymer dead end insulators, hot tops etc.





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THANK YOU!

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