Importance of Using One Shot January 2019

A Reminder of the Importance of Putting Your Protection Equipment On One Shot

A recent incident involving the repair of damaged conductor resulted in the conductor breaking and having to rely on the OCR being set to one shot.

The crew was going to replace approximately 20 feet of damaged conductor; the damage was on both the phase and neutral. The crew put the protection device on one shot (OCR) and installed a jumper on the neutral. This allowed them to cut open the neutral and lower it, and get it in the clear because of working on the energized phase.

The crew had precut a new piece of conductor with the intent to install wire grips on the new and old conductor and hoist enough slack in the old conductor to splice in the new piece and release the tension on the hoist and grips to complete the job. While attaching the grips on the existing conductor (the non-damaged part) to start the spicing process, the existing conductor broke allowing the energized end to fall to the ground.

Because there was some snow on the ground, the protection device didn't open right away. As one of the crew members was driving to the OCR to open it, it finally opened on its own. When the energized conductor fell it did not make contact with the neutral to create a short/fault to get the protection device to open immediately.

This is a good learning opportunity to remember the importance of putting the protection on one shot and, if that feature is not available, to make sure to install a protection fuse in the protection device (OCR) bypass.

When asked how this incident could have been eliminated, the answer was, "We could have de-energized the conductor before attempting to splice out the bad section." This likely would have been the best choice, but what would you have done in this situation? How many members would you interrupt service to? These and many more questions can always be asked after the fact, but most importantly, what measures would you take to prevent injury/damage before starting the task?