

# SPECIFICATION

## TYING GUIDE FOR UNDERGROUND RISERS

1. SCOPE:

1.1 The purpose of this document is to provide detailed guidelines for both internal and contracted persons performing installation of grounding that is not defined within other internal PRECorp documents or which are in excess of RUS standards.

2. DOCUMENTS:

- 2.1 RUS Bulletin 1728F-803 24.9/14.4 KV Construction
- 2.2 PRECorp avian safety construction standards:
  - 2.2.1.1 UC1-R
  - 2.2.1.2 UC1-AR
  - 2.2.1.3 UA1-R
  - 2.2.1.4 UA1-RG

3. EQUIPMENT:

3.1 None

4. MATERIALS:


- 4.1 Insulated conductor sized appropriately for the anticipated current capacity shall be used.
- 4.2 Compression connectors

5. INSTALLATION NOTES:

- 5.1 The arrestor shall be grounded with an insulated ground conductor to the stem terminator and CN. It shall be connected to this point with a compression connector. Feed the arrestor lead through the crossarm hole as a guide, and terminate it near the base of the stem terminator, on the insulated conductor that the CN will also be tied to.
- 5.2 Put elbow sealing kit (cold shrink 5"insulated sleeve) on prior to installation of terminator. (Thread the sleeve on the conductor)
- 5.3 After terminating the pot head, pull back the concentric neutral 6" from the terminator and use a compression connector to tie CN to the insulated ground/conductor. This needs to be tied/crimped, using compression connectors to the bare pole ground 6" below the lowest crossarm.
- 5.4 Upon installation of crimps, cut the CN, then prior to installing the cold shrink sleeve, wrap the crimps and conductor end with electric tape.
- 5.5 The #2 insulated ground will be terminated 6" below the lowest crossarm, tying the pole ground to the insulated conductor with a compression connector, and carry this back to the neutral (for each phase).
- 5.6 Use the sleeve from the terminator kit to seal the top of the jacket, then using the cold shrink cable accessory sealing kit, install it below the sleeve of the terminator kit to seal crimps and exposed bare conductor, selecting a sleeve that is wide enough to give adequate room for the cold shrink tab to be utilized without damaging the tape around the crimped connectors.

6. ADDITIONAL NOTES:

- 6.1 Jumpers should be inspected on all assemblies.
  - 6.1.1 All energized jumpers must be insulated.

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6.1.2 Jumpers with inadequate insulation coverage to a point within bushing or other covers shall be replaced or reworked.

6.1.3 No Jumpers exhibiting cracked or crazing insulation shall be used.

6.2 All pole top grounds should be removed to 6" below the lowest crossarm on the riser.

6.3 Any ground wire or neutral jumper required above the neutral connection shall be insulated and of sufficient gauge.

7. ENVIRONMENTAL AND SAFETY:

None