

Rural Utilities Service, USDA

§ 1755.701

and connected. (Refer to RUS TE&CM 810, Items 2.19, 4.3.1 and 8.1.3.)

Acceptable: Yes No

Comments: _____

9.2 If there is a non-MGN ac power system, there is to be a properly sized and connected insulated conductor bond between the power service ground electrode and the MGB. (Refer to RUS TE&CM 810, Item 4.3.1.1.)

Acceptable: Yes No

Comments: _____

9.3 AC conductors including ground conductors serving 120-volt ac electric convenience receptacles and all direct wire peripheral equipment, located in the IGZ, should be sized in accordance with normal "green wire" criteria. (Refer to RUS TE&CM 810, Items 5.5.4, 5.5.5, and 5.5.6.)

Acceptable: Yes No

Comments: _____

9.4 Minimum protection for ac power serving the central office buildings should consist of an RUS accepted secondary arrester at the service entrance. (Refer to RUS TE&CM 810, section 9.)

Acceptable: Yes No

Comments: _____

9.5 A properly sized conductor for ground bonding between the standby power plant framework (not separately derived) and the MGB is to be provided to equalize framework voltages for personnel safety reasons. (Refer to RUS TE&CM 810, Item 4.2.4.)

Acceptable: Yes No

Comments: _____

10. Miscellaneous

10.1 All non-IGZ equipment frames, relay racks, cable racks and other ironwork are to be properly connected to the MGB. (Refer to TE&CM 810, Item 4.4.)

Acceptable: Yes No

Comments: _____

10.2 Shields on high frequency intra-office cables are to be properly isolated and connected only to an isolation ground bar in the relay rack. All shielded cables entering the IGZ should only be referenced at the IGZ ter-

mination point as given by the manufacturer. (Refer to RUS TE&CM 810, Item 7.2.1.2.)

Acceptable: Yes No

Comments: _____

10.3 Isolation ground bars in the relay racks are to be properly connected to the MGB with appropriate sized conductor with no sharp bends.

Acceptable: Yes No

Comments: _____

10.4 All radio equipment cabinet(s) are to be at least 10 feet (305 cm) from the IGZ.

Acceptable: Yes No

Comments: _____

10.5 The metal spare parts cabinet is to be grounded with a #6 AWG or larger insulated wire to non-IGZ cable rack, etc. or directly to the MGB.

Acceptable: Yes No

Comments: _____

[58 FR 30938, May 28, 1993; 58 FR 36252, July 6, 1993; as amended at 60 FR 1711, Jan. 5, 1995, 60 FR 64312, 64314, Dec. 15, 1995]

§§ 1755.523-1755.699 [Reserved]

§ 1755.700 RUS specification for aerial service wires.

§§ 1755.701 through 1755.704 cover the requirements for aerial service wires.

[61 FR 26074, May 24, 1996]

§ 1755.701 Scope.

(a) This section covers the requirements for aerial service wires intended for aerial subscriber drops.

(b) The aerial service wires can be either copper coated steel reinforced or nonmetallic reinforced designs.

(c) For the copper coated steel reinforced design, the reinforcing members are the conductors.

(1) The conductors are solid copper-covered steel wires.

(2) The wire structure is completed by insulating the conductors with an overall extruded plastic insulating compound.

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(d) For the nonmetallic reinforced design, the conductors are solid copper individually insulated with an extruded solid insulating compound.

(1) The insulated conductors are either laid parallel (two conductor design only) or twisted into pairs (a star-quad configuration is permitted for two pair wires).

(2) The wire structure is completed by the application of nonmetallic reinforcing members and an overall plastic jacket.

(e) All wires sold to RUS borrowers for projects involving RUS loan funds under §§1755.700 through 1755.704 must be accepted by RUS Technical Standards Committee "A" (Telecommunications). For wires manufactured to the specification of §§1755.700 through 1755.704, all design changes to an accepted design must be submitted for acceptance. RUS will be the sole authority on what constitutes a design change.

(f) Materials, manufacturing techniques, or wire designs not specifically addressed by §§1755.700 through 1755.704 may be allowed if accepted by RUS. Justification for acceptance of modified materials, manufacturing techniques, or wire designs must be provided to substantiate product utility and long term stability and endurance.

[61 FR 26074, May 24, 1996]

§ 1755.702 Copper coated steel reinforced (CCSR) aerial service wire.

(a) *Conductors.* (1) Each conductor shall comply with the requirements specified in the American National Standard Institute/Insulated Cable Engineers Association, Inc. (ANSI/ICEA) S-89-648-1993, paragraphs 2.1 through 2.1.5. The ANSI/ICEA S-89-648-1993 Standard For Telecommunications Aerial Service Wire, Technical Requirements (approved by ANSI July 11, 1994) is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of ANSI/ICEA S-89-648-1993 are available for inspection during normal business hours at RUS, room 2845, U.S. Department of Agriculture, Washington, DC 20250-1500 or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC. Copies are available from ICEA, P. O. Box 440, South Yarmouth,

MA 02664, telephone number (508) 394-4424.

(2) Factory joints in conductors shall comply with the requirement specified in ANSI/ICEA S-89-648-1993, paragraph 2.1.6.

(b) *Conductor insulation.* (1) The raw materials used for the conductor insulation shall comply with the requirements specified in ANSI/ICEA S-89-648-1993, paragraph 3.1.1.

(2) The raw materials shall be accepted by RUS prior to their use.

(3) The finished conductor insulation shall be free from holes, splits, blisters, or other imperfections and shall be as smooth as is consistent with best commercial practice.

(4) The finished conductor insulation shall comply with the requirements specified in ANSI/ICEA S-89-648-1993, paragraphs 3.1.5 through 3.1.5.4.

(5) The insulation shall have a minimum spot thickness of not less than 0.9 millimeters (mm) (0.03 inches (in.)) at any point.

(c) *Wire assembly.* (1) The two conductors shall be insulated in parallel to form an integral configuration.

(2) The finished wire assembly shall be either a flat or a notched oval. Other finished wire assemblies may be used provided that they are accepted by RUS prior to their use.

(3) The overall dimensions of the finished wire assembly shall be in accordance with the following requirements:

Diameter	Dimensions	
	Minimum mm (in.)	Maximum mm (in.)
Major	5.5 (0.22)	8.0 (0.31)
Minor	3.0 (0.12)	5.0 (0.19)

(d) *Conductor marking.* The insulated conductors of a finished wire shall be marked in accordance with the requirements specified in ANSI/ICEA S-89-648-1993, paragraph 3.1.4.

(e) *Electrical requirements—*(1) *Conductor resistance.* The direct current (dc) resistance of each conductor in a completed CCSR aerial service wire shall comply with the requirement specified in ANSI/ICEA S-89-648-1993, paragraph 7.1.2.

(2) *Wet mutual capacitance.* The wet mutual capacitance of the completed CCSR aerial service wire shall comply with the requirement specified in