The current standard does not include splicing methods and materials used for fiber optic cables because at the time the standard was written no such methods and materials were addressed because RUS borrowers were providing telecommunication services to subscribers only over copper cables. Since that time RUS borrowers have been providing telecommunication services to subscribers over both copper and fiber optic cables. Since RUS borrowers are installing fiber optic cables to provide subscriber services, the current standard needs to be revised to provide borrowers and contractors with standardized splicing methods and materials for fiber optic cables.

This action will allow borrowers and contractors an economical and efficient means of reducing their construction costs through the use of improved splicing techniques for copper cables and standardized splicing methods for fiber optic cobles

fiber optic cables.

On Åugust 29, 1994, RUS published a proposed rule (59 FR 44347) to rescind RUS Bulletin 345–6, RUS Standard for Splicing Plastic-Insulated Cables, PC–2, and to codify the revised standard at 7 CFR 1755.200, RUS Standard for Splicing Copper and Fiber Optic Cables. Comments on this proposed rule were due by October 28, 1994. No comments were received by this due date.

Although no comments were received from any outside party on the proposed rule, RUS, upon review of the proposed rule, discovered that paragraph (e)(8) which makes reference to paragraphs (g)(4), (g)(5)(i), (g)(5)(ii), and (g)(5)(iv)should be changed to reference paragraphs (g)(4), and (g)(5)(i) through (g)(5)(iii) because paragraph (g)(5)(iv) did not exist in the proposed rule. Therefore RUS will change the paragraph (e)(8) to make reference to paragraphs (g)(4), and (g)(5)(i) through (g)(5)(iii). This change will not result in any change in the technical requirements of paragraph (e)(8).

List of Subjects in 7 CFR Part 1755

Incorporation by reference, Loan programs—communications, Rural areas, Telephone.

For reasons set out in the preamble, RUS amends chapter XVII of title 7 of the Code of Federal Regulations as follows:

PART 1755—TELECOMMUNICATIONS STANDARDS AND SPECIFICATIONS FOR MATERIALS, EQUIPMENT AND CONSTRUCTION

1. The authority citation for part 1755 continues to read as follows:

Authority: 7 U.S.C. 901 et seq., 1921 et seq.

§1755.97 [Amended]

- 2. Section 1755.97 is amended by removing the entry for RUS Bulletin 345–6 from the table.
- 3. Section 1755.98 is amended by adding a new entry to the table in numerical order to read as follows:

§ 1755.98 List of telephone standards and specifications included in other 7 CFR parts.

Section Issue date Title

1755.200 .. Jan. 26, 1995 .. RUS Standard for Splicing Copper and Fiber Optic Cables.

4. Section 1755.200 is added to read as follows:

§ 1755.200 RUS standard for splicing copper and fiber optic cables.

- (a) *Scope.* (1) This section describes approved methods for splicing plastic insulated copper and fiber optic cables. Typical applications of these methods include aerial, buried, and underground splices.
- (2) American National Standard Institute/National Fire Protection Association (ANSI/NFPA) 70, 1993 National Electrical Code (NEC) referenced in this section is incorporated by reference by RUS. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. A copy of the ANSI/NFPA 1993 NEC standard is 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 NFPA, Batterymarch Park, Quincy, Massachusetts 02269, telephone number 1 (800) 344-3555.
- (3) American National Standard Institute/Institute of Electrical and Electronics Engineers, Inc. (ANSI/IEEE), 1993 National Electrical Safety Code (NESC) referenced in this section is incorporated by reference by RUS. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. A copy of the ANSI/IEEE 1993 NESC standard is 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 IEEE Service Center, 455 Hoes Lane, Piscataway, New Jersey 08854, telephone number 1 (800) 678–4333.
- (b) General. (1) Only Rural Utilities Service (RUS) accepted filled cable and splicing materials shall be used on outside plant projects financed by RUS.
- (2) The installation instructions provided by the manufacturer of splicing materials shall be followed except where those instructions conflict with the procedures specified in this section.
- (3) Precautions shall be taken to prevent the ingress of moisture and other contaminants during all phases of the splicing installation. When an uncompleted splice must be left unattended, it shall be sealed to prevent the ingress of moisture and other contaminants.
- (4) Minor sheath damage during construction may be repaired if the repair is completed immediately and approved by the borrower's resident project representative. Minor damage is typically repaired by:

(i) Scuffing the cable sheath associated with the damaged area;

- (ii) Applying several layers of DR tape over the scuffed and damaged area;
- (iii) Applying several layers of plastic tape over the DR tape; and
- (iv) If damage is severe enough to rupture the cable shield, a splice closure shall be installed.
- (5) All splice cases installed on RUS toll trunk and feeder cables shall be filled, whether aerial, buried, or underground.
- (c) Splicing considerations for copper cables—(1) Preconstruction testing. It is desirable that each reel of cable be tested for grounds, opens, shorts, crosses, and shield continuity before the cable is installed. However, manufacturer supplied test results are acceptable. All cable pairs shall be free from electrical defects.
- (2) Handling precautions. The cable manufacturer's instructions concerning pulling tension and bending radius shall be observed. Unless the cable manufacturer's recommendation is more stringent, the minimum bending radius shall be 10 times the cable diameter for copper cables and 20 times the cable diameter for fiber optic cables.
- (3) Cable sheath removal. (i) The length of cable sheath to be removed shall be governed by the type of splicing hardware used. Follow the splice case manufacturer's recommendations. For pedestals or large pair count splice housings, consider removing enough cable sheath to allow the conductors to