Proposed Rules

Federal Register
Vol. 63, No. 185
Thursday, September 24, 1998

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF AGRICULTURE

Rural Utilities Service

7 CFR Part 1755

RUS Specification for Telecommunications Cable Splicing Connectors

AGENCY: Rural Utilities Service, USDA.

ACTION: Proposed rule.

SUMMARY: The Rural Utilities Service (RUS) proposes to amend its regulations on Telecommunications Standards and Specifications for Materials, Equipment, and Construction, by rescinding RUS Bulletin 345–54, RUS Specification for Telephone Cable Splicing Connectors, PE–52, and codifying the revised specification, RUS Specification for Telecommunications Cable Splicing Connectors. The revised specification will update the relevant engineering and technical requirements for telecommunications splicing connectors including provisions for mechanical fiber optic splicing connectors.

DATES: Comments concerning this proposed rule must be received by RUS or be postmarked no later November 23, 1998.

ADDRESSES: Comments should be mailed to Orren E. Cameron III, Director, Telecommunications Standards Division, Rural Utilities Service, U.S. Department of Agriculture, 1400 Independence Avenue, SW, STOP 1598, Washington, DC 20250–1598. RUS requests an original and three copies of all comments (7 CFR part 1700). All comments received will be made available for public inspection at room 2835, South Building, U.S. Department of Agriculture, 1400 Independence Avenue, SW, STOP 1598 Washington, DC 20250–1598 between 8 a.m. and 4 p.m., Monday through Friday, except holidays, (7 CFR 1.27(b)).

FOR FURTHER INFORMATION CONTACT: Charlie I. Harper, Jr., Chief, Outside Plant Branch, Telecommunications Standards Division, Rural Utilities Service, U.S. Department of Agriculture, 1400 Independence Avenue, SW, STOP 1598, Washington, DC 20250–1598, telephone (202) 720–0667.

SUPPLEMENTARY INFORMATION:

Executive Order 12866

This proposed rule has been determined to be not significant for the purposes of Executive Order 12866 and therefore has not been reviewed by the Office of Management and Budget (OMB).

Executive Order 12988

This proposed rule has been reviewed under Executive Order 12988, Civil Justice Reform. RUS has determined that this proposed rule meets the applicable standards provided in section 3 of the Executive Order.

In accordance with the Executive Order and the rule: (1) All state and local laws and regulations that are in conflict with this rule will be preempted; (2) no retroactive effect will be given to the rule; and, (3) administrative proceedings are required to be exhausted prior to initiating litigation against the Department. (See 7 U.S.C. 6912).

Regulatory Flexibility Act Certification

The Administrator of RUS has determined that this proposed rule will not have a significant impact on a substantial number of small entities, as defined by the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), and therefore, the Regulatory Flexibility Act does not apply to this rule. This proposed rule involves standards and specifications, which may increase the short-term direct costs to the RUS borrower. However, the long-term direct economic costs are reduced through greater durability and lower maintenance cost over time.

Information Collection and Recordkeeping Requirements

The information collection and recordkeeping requirements contained in this proposed rule were approved by OMB pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C Chapter 35, as amended) under control number 0572–0059. Comments concerning these requirements should be directed to F. Lamont Heppe, Jr., Director, Program Development and Regulatory analysis, USDA, RUS, Stop 1522, Washington, DC 20250–1522.

National Environmental Policy Act Certification

The Administrator of RUS has determined that this proposed rule will not significantly affect the quality of the human environment as defined by the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*). Therefore, this action does not require an environmental impact statement or assessment.

Catalog of Federal Domestic Assistance

The program described by this proposed rule is listed in the Catalog of Federal Domestic Assistance programs under No. 10.851, Rural Telephone Loans and Loan Guarantees, and No. 10.852, Rural Telephone Bank Loans. This catalog is available on a subscription basis from the Superintendent of Documents, United States Government Printing Office, Washington, DC 20402.

Executive Order 12372

This proposed rule is excluded from the scope of Executive Order 12372, Intergovernmental Consultation, which may require consultation with State and local officials. A final rule related notice entitled, ''Department Programs and Activities Excluded from Executive Order 12372'' (50 FR 47034) excludes RUS and RTB loans and loan guarantees, and RTB bank loans, to governmental and nongovernmental entities from coverage under this Order.

Unfunded Mandates

This proposed rule contains no federal mandates (under the regulatory provision of Title II of the Unfunded Mandates Reform Act) for State, local, and tribal governments or the private sector. Thus this proposed rule is not subject to the Unfunded Mandates Reform Act.

Background

RUS issues publications titled ''Bulletin'' which serve to guide borrowers regarding already codified policy, procedures, and requirements needed to manage loans, loan guarantee programs, and the security instruments which provide for and secure RUS financing. RUS issues standards and specifications for the construction of telecommunications facilities financed with RUS loan funds. RUS is proposing to rescind Bulletin 345–54, ''RUS

Specification for Telephone Cable Splicing Connectors, PE–52,'' and to codify the revised standard at 7 CFR 1755.521, ''RUS Specification for Telecommunications Cable Splicing Connectors.''

RUS Bulletin 345–54 (PE–52) contains mechanical and environmental requirements, desired design features, and test methods for evaluation of copper cable splicing connectors. Because of technological advancements made in materials used to fabricate copper cable splicing connectors and test methods used to demonstrate the functional reliability of copper cable splicing connectors over the past 25 years, the current mechanical and environmental performance requirements and test methods for evaluating the reliability of copper cable splicing connectors specified in the current specification have become outdated. To allow RUS borrowers to take advantage of these improved materials and test methods, the current specification will be revised to update the mechanical and environmental performance requirements and test methods used to evaluate the reliability of copper cable splicing connectors.

The current specification does not include a section for evaluating the mechanical, electrical, and environmental reliability of mechanical fiber optic splicing connectors because at the time the specification was written, no such requirements were needed because no such type of splicing connectors existed. Since that time, splicing connectors designed for use with fiber optic cables have been fabricated. Since RUS borrowers are providing telecommunication services over fiber optic cables, the current specification will be revised to include end product performance requirements and test methods used to evaluate the mechanical, electrical, and environmental reliability of splicing connectors designed for use with fiber optic cables.

List of Subjects in 7 CFR Part 1755

Loan programs-telecommunications, Reporting and recordkeeping requirement, Rural areas, Telecommunications.

For reasons set out in the preamble, RUS proposes to amend 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.*, 6941 *et seq.*

§ 1755.97 [Amended]

2. Section 1755.97 is amended by removing the entry RUS Bulletin 345–54 from the table.

3. Section 1755.98 is amended by adding the entry 1755.521 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
*	*	*
1755.521	[Effective date of final rule]	RUS Specification for Telecommunications Cable Splicing Connectors.
*	*	*

4. Section 1755.521 is added to read as follows:

§ 1755.521 RUS specification for telecommunications cable splicing connectors.

(a) *Scope.* (1) The purpose of this specification is to inform manufacturers and users of copper cable splicing connectors and mechanical fiber optic splicing connectors of the engineering and technical requirements that are considered necessary for satisfactory performance in rural outside plant environments. Included are the relevant electrical, mechanical, optical, and environmental requirements, desired design features, and test methods for evaluation of copper cable splicing connectors and fiber optic splicing connectors.

(2) All connectors purchased after this specification takes effect, for projects involving RUS loan funds subject to this specification, must have been accepted by RUS Technical Standards Committee ''A'' (Telecommunications).

(i) Connectors that have been previously accepted by Technical Standards Committee ''A'' (Telecommunications) prior to the effective date of this specification must qualify to this specification. Manufacturers will be given up to nine months to qualify to this specification after the effective date.

(ii) All changes in design of connectors must be submitted to RUS for acceptance. RUS will be the sole authority on what constitutes a design change.

(3) American Society for Testing and Materials Specifications (ASTM) G 21–90, Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi; ASTM A 276–91a, Specification for Stainless and Heat-Resisting Steel Bars and Shapes; and ASTM D 4566–94, Standard Test Methods for Electrical Performance Properties of Insulations and Jackets for Telecommunications Wire and Cable, referenced in this section are pending approval of incorporation by reference by the Office of the Federal Register. Copies of ASTM standards are available for inspection during normal business hours at RUS, room 2843, U.S. Department of Agriculture, 1400 Independence Avenue, SW., Washington, DC 20250–1598 or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC 20001. Copies are available from ASTM, 100 Barr Harbor Drive, W. Conshohocken, Pennsylvania 19428–2959, telephone number (610) 832–9585.

(4) Electronics Industries Association Standards (EIA)–455–4A, Fiber Optic Connector/Component Temperature Life; EIA–455–6A, Cable Retention Test Procedure for Fiber Optic Cable Interconnecting Devices; EIA–455–21, Mating Durability of Fiber Optic Interconnecting Devices; EIA–455–34, Interconnection Device Insertion Loss Test; and EIA–455–171, Attenuation by Substitution Measurement—for Short-Length Multimode Graded-Index and Single-Mode Optical Fiber Cable Assemblies, referenced in this section are pending approval of incorporation by reference by the Office of the Federal Register. Copies of EIA standards are available for inspection during normal business hours at RUS, room 2843, U.S. Department of Agriculture, 1400 Independence Avenue, SW.,

Washington, DC 20250–1598 or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC 20001. Copies are available from Global Engineering Documents, 15 Inverness Way East, Englewood, CO 80112, telephone number (303) 792–2181.

(5) Electronic Industries Association/Telecommunications Industries Association Standards (EIA/TIA)–455–3A, Procedure to Measure Temperature Cycling Effects on Optical Fibers, Optical Cable, and Other Passive Fiber Optic Components; EIA/TIA–455–12A, Fluid Immersion Test for Fiber Optic Components; and EIA/TIA–455–107, Return Loss for Fiber Optic Components, referenced in this section are pending approval of incorporation by reference by the Office of the Federal Register. Copies of EIA/TIA standards are available for inspection during normal business hours at RUS, room 2843, U.S. Department of Agriculture, 1400 Independence Avenue, SW., Washington, DC 20250–1598 or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC 20001. Copies are available from Global Engineering Documents, 15 Inverness Way East, Englewood, CO 80112, telephone number (303) 792–2181.

(6) Telecommunications Industries Association/Electronics Industries Association Standards (TIA/EIA)–455–5B, Humidity Test Procedure for Fiber Optic Components; and TIA/EIA–455–11B, Vibration Test Procedure for Fiber Optic Components and Cables, referenced in this section are pending approval of incorporation by reference by the Office of the Federal Register. Copies of TIA/EIA standards are available for inspection during normal business hours at RUS, room 2843, U.S. Department of Agriculture, Washington DC 20250–1598 or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington DC. Copies are available from Global Engineering Documents, 15 Inverness Way East, Englewood, CO 80112, telephone number (303) 792–2181.

(b) *Materials.* (1) The plastic components used in splicing connectors shall be resistant to chemical attack, fungus growth, and growth of contaminating films as specified in ASTM G 21–90. Metallic materials used in splicing connectors shall have a corrosion resistance equivalent to nickel-chrome stainless steel in accordance with ASTM A 276–91a.

(2) All splicing connectors shall be filled.

(3) The manufacturer shall demonstrate that a quality assurance program, satisfactory to RUS, is in place to guarantee all material and product specifications are met. The program shall include the following:

(i) Incoming inspection of raw materials;

(ii) In-process inspection of the splice components;

(iii) Final inspection of the splice product;

(iv) Calibration procedures for all test equipment used in the qualification of the product; and

(v) Recall procedures in the event out-of-calibration equipment is identified.

(c) *Performance criteria and test procedures for copper cable splicing connectors.*—(1) *General Information.* (i) Copper cable splicing connectors have the function of splicing one or more combinations of No. 19 through No. 26 American Wire Gauge (AWG) copper conductors. Cable used for these tests shall be RUS accepted.

(ii) The manufacturer shall specify the wire gauge range for the connector or connectors submitted to RUS for acceptance. The stripping of conductor insulation shall not be permitted.

(iii) The manufacturer shall specify the splicing configuration for the connector, i.e., inline, butt, tap, or other.

(iv) The manufacturer shall perform adequate inspections and tests to demonstrate that copper cable splicing connectors and their components comply with RUS requirements.

(v) Unless otherwise specified, all tests shall be performed at a temperature of 24 ± 3°C (75 ± 5°F) and a relative humidity (RH) of up to 55 percent (%).

(2) *Test samples.* (i) Unless otherwise specified, all test samples shall be assembled for each connector type as follows:

(A) Largest specified gauge wire connected with largest specified gauge wire;

(B) Smallest specified gauge wire connected with smallest specified gauge wire; and

(C) Smallest specified gauge wire connected with largest specified gauge wire. For connectors which can connect more than 2 wires, assemble the greatest number of smallest gauge wires connected with one of the largest gauge wires.

(ii) For each test required, 5 samples from each of the categories in paragraph (c)(2)(i) of this section shall be tested. A total of 15 samples will be needed for each test.

(iii) The test results for each sample shall be submitted in tabulated form.

(3) *Connection resistance test.* (i) Thirty (30) 4 inch (in.) [102 millimeter (mm)] pieces shall be cut from appropriate gauged wire and assembled in the connectors in accordance with paragraph (c)(2) of this section using the connector manufacturer's instructions. For resistance measurements, expose the copper conductors of the test leads by removing 0.5 in. to 1 in. (12 mm to 25 mm) of insulation from the end of the test leads.

(ii) Fifteen (15) 8 in. (203 mm) pieces shall be cut from the appropriate gauged wire for use as control wire samples.

(iii) The resistance of each test sample and a corresponding control wire shall be measured and recorded. The resistance of each test sample shall not exceed the resistance of the corresponding control wire sample by more than 7 percent.

(iv) Each test sample shall be held and each connector shall be twisted 90 degrees around the wire axis once in each direction. After twisting, the resistance of the test sample shall be measured and recorded. The resistance of each test sample shall not exceed the resistance of the corresponding control wire sample by more than 9 percent.

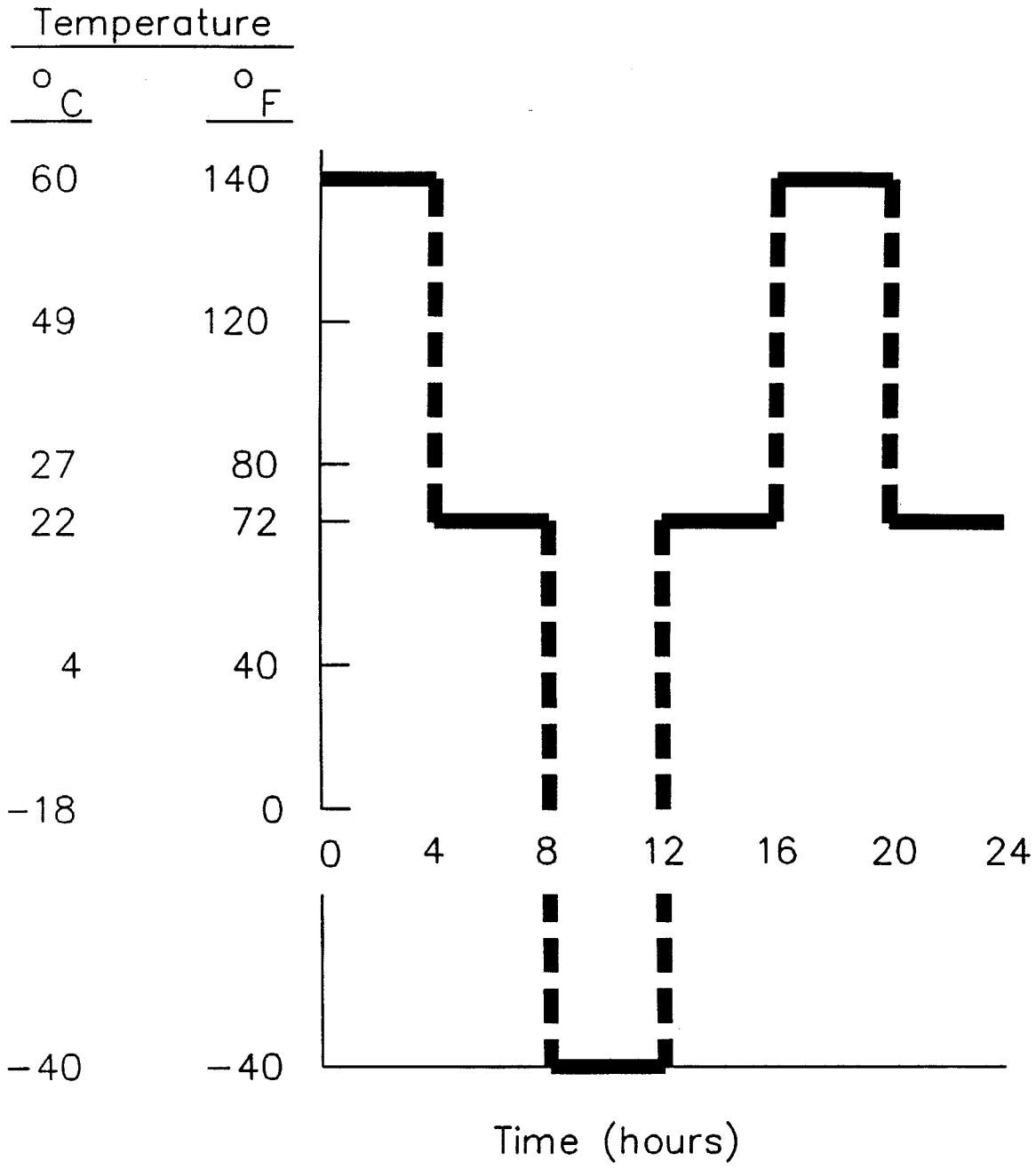
(4) *Heat-cold cycling test.* (i) After completion of the connection resistance test, the test samples shall be subjected to the heat-cold cycling test.

(ii) The test samples shall be placed in an environmental test chamber and exposed to the temperature cycle of Figure 1 for five complete cycles. The step function nature of the temperature changes may be achieved by insertion and removal of the test samples from the chamber. The soak time at each temperature shall be four hours. The test samples shall be removed from the test chamber at the conclusion of the five-cycle period and shall be allowed to return to room temperature. Figure 1 is as follows:

BILLING CODE 3410–15–P

FIGURE 1

HEAT–COLD CYCLING



(iii) No measurements shall be made at this time.

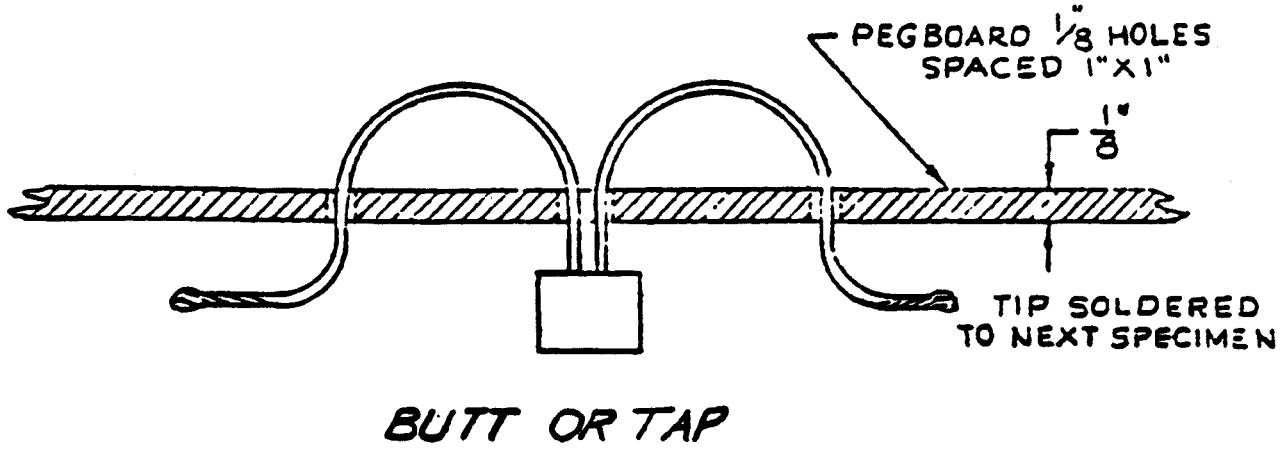
(5) *Vibration*. (i) After the completion of the heat-cold cycling test, the test samples shall be subjected to the vibration test.

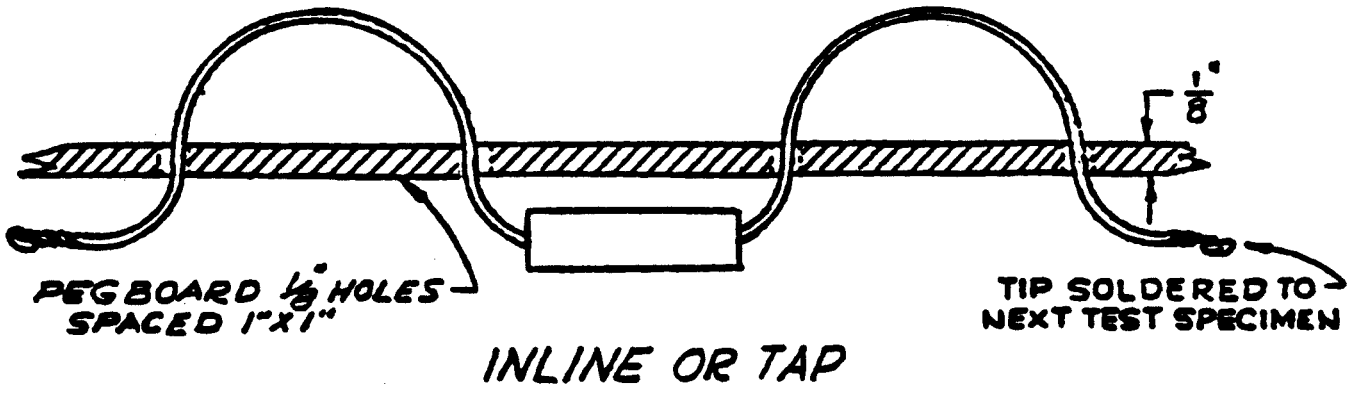
(ii) A vibration machine shall be used which produces a simple harmonic motion having .06 inch (1.52 mm) maximum total excursion, cycling from 10 to 55 to 10 Hertz within 1 minute. A monitoring circuit shall be used which is capable of detecting momentary opens of 10 microseconds or longer.

(iii) Each test sample shall be supported by a pegboard as indicated in Figure 2, which is attached to the vibration machine. The test samples and monitoring circuit shall be electrically connected in series. Wires shall not be cut short. Figure 2 is as follows:

Figure 2

Vibration Test Setup

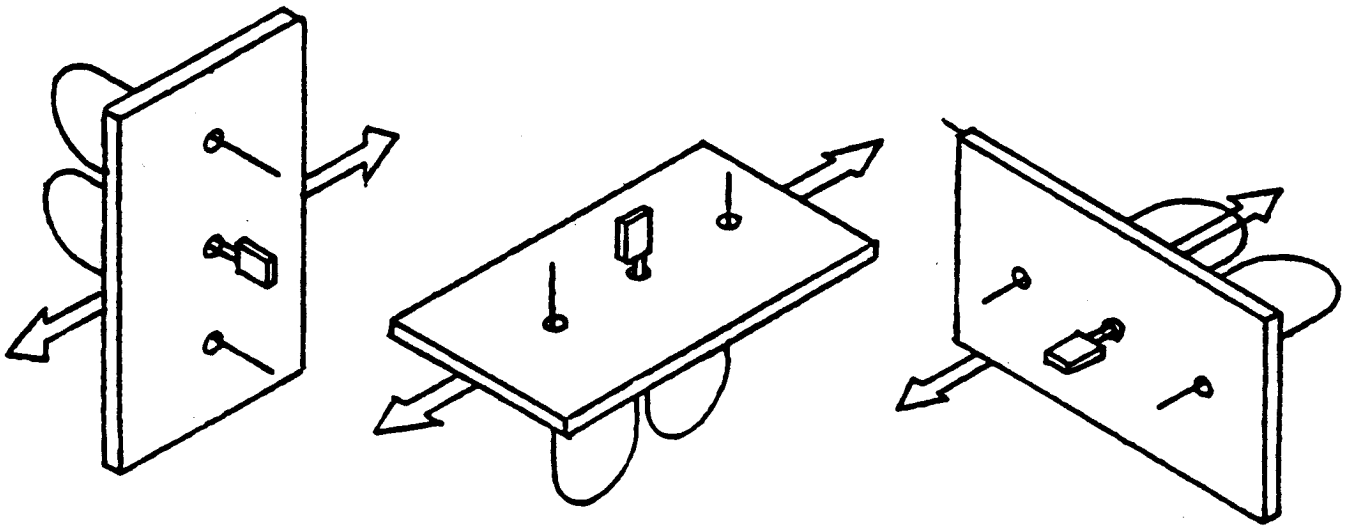




(iv) The test samples shall be vibrated for a total of 3 hours, 1 hour in each of the 3 mutually exclusive planes as indicated in Figure 3. The direct current (dc) through the test samples shall be monitored for any fluctuations or momentary opens. Fluctuations or momentary opens shall be less than or equal to 10 microseconds. Figure 3 is as follows:

Figure 3

Vibration in Three Mutually Exclusive Planes



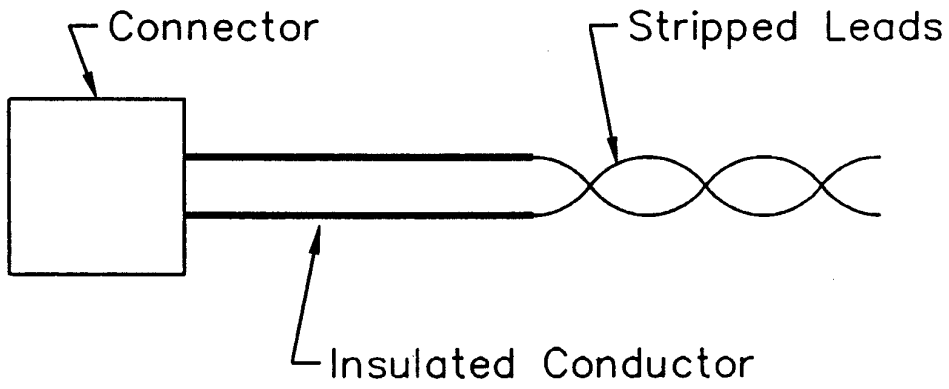
(v) After completion of the vibration test, the test samples shall be removed from the vibration machine and the connection resistance of each test sample shall be measured. The resistance of each test sample shall not exceed the resistance of the corresponding control wire sample by more than 13 percent.

(vi) The test samples may be discarded after completion of the vibration test.

(6) *Insulation resistance—humidity cycle.* (i) Thirty (30) 15 in. (381 mm) pieces shall be cut from the appropriate gauged wire and assembled in the connectors in accordance with paragraph (c)(2) of this section using the connector manufacturer's instructions. For insulation resistance measurements, expose the copper conductors of the test leads by removing 0.5 in. to 1 in. (12 mm to 25 mm) of insulation from the ends of the test leads. The exposed copper conductors of the test leads shall be twisted together as indicated in Figure 4 as follows:

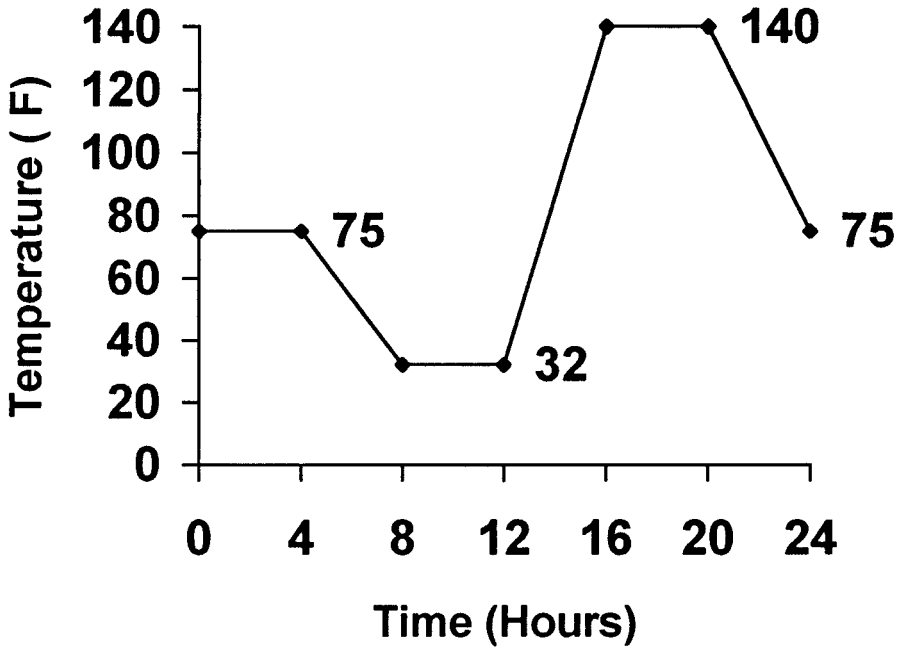
Figure 4

Insulation Resistance
Test Sample Preparation



(ii) The test samples shall be placed in an environmental test chamber at 95 ± 3% RH and temperature cycled per Figure 5 for a period of 30 days. Figure 5 is as follows:

FIGURE 5
HUMIDITY TEMPERATURE CYCLE



Note: Relative Humidity = 95% +/- 3%

BILLING CODE 3410–15–C

(iii) After the test samples have been allowed to stabilize at room temperature and humidity, the insulation resistance of the test sample leads to ground shall be greater than or equal to 100,000 megohms when tested in accordance with ASTM D 4566–94 using a test voltage of 250 volts dc.

(7) *Insulation resistance—water soak:* (i) Thirty (30) 15 in. (381 mm) pieces shall be cut from the appropriate gauged wire and assembled in the connectors in accordance with paragraph (c)(2) of this section using the connector manufacturer's instructions. For insulation resistance measurements, expose the copper conductors of the test leads by removing 0.5 in. to 1 in. (12 mm to 25 mm) of insulation from the ends of the test leads. The exposed copper conductors of the test leads shall be twisted together as indicated in Figure 4.

(ii) A solution of distilled or tap water and sodium chloride (5 percent by weight) shall be prepared and placed in a glass container.

(iii) The connectors of the test samples shall be immersed in the solution except for the twisted test leads of the test samples. A copper electrode shall be inserted into the solution.

(iv) After the system (immersed connectors and solution) has stabilized for 2 hours, the first insulation resistance measurement of the test sample leads to the copper electrode shall be taken. The insulation resistance shall be performed in accordance with ASTM D 4566–94 using 100 volts dc.

(v) The test samples shall be removed from the solution after 72 hours and allowed to stabilize at room temperature and humidity for an additional 72 hours. The procedure shall be repeated for a total of 5 cycles. Insulation resistance measurements of the test sample leads to the copper electrode shall be taken for each day that the test samples are immersed in solution. Report resistance readings in megohms. The insulation resistance shall be performed in accordance with ASTM D 4566–94 using 100 volts dc.

(vi) The insulation resistance of the test sample leads to the copper electrode shall be greater than or equal to 100 megohms.

(8) *Dielectric breakdown (dry).* (i) Thirty (30) 15 in. (381 mm) pieces shall be cut from the appropriate gauged wire and assembled in the connectors in accordance with paragraph (c)(2) of this section using the connector manufacturer's instructions. For dielectric breakdown measurements, expose the copper conductors of the test leads by removing 0.5 in. to 1 in. (12 mm to 25 mm) of insulation from the ends of the test leads. The exposed copper conductors of the test leads shall be twisted together.

(ii) An alternating current (ac) power source capable of applying 8,000 volts in 500 volt root-mean-squared per second (rms/s) steps shall be used. The unit shall be equipped with a circuit breaker to disconnect the power source at breakdown and a voltmeter to indicate the rms voltages.

(iii) The high voltage lead of the power source shall be attached to the test sample lead and the ground voltage lead of the power source shall be attached to ground. The voltage shall be applied to the test sample in 500 volt rms/s steps until either breakdown or 8,000 volts rms is reached. The dielectric strength shall be recorded in rms voltage at the point of breakdown. Breakdown occurring at less than 2,500 volts rms shall constitute a failure.

(iv) The dielectric breakdown test shall be repeated for all the remaining test samples prepared in accordance with paragraph (c)(8)(i) of this section. The test results shall be reported for each test sample.

(9) *Dielectric breakdown (wet).* (i) Thirty (30) 15 in. (381 mm) pieces shall be cut from the appropriate gauged wire and assembled in the connectors in accordance with paragraph (c)(2) of this section using the connector manufacturer's instructions. For dielectric breakdown measurements, expose the copper conductors of the test leads by removing 0.5 in. to 1 in. (12 mm to 25 mm) of insulation from the ends of the test leads. The exposed copper conductors of the test leads shall be twisted together.

(ii) A solution of distilled or tap water and sodium chloride (5 percent by weight) shall be prepared and placed in a glass container.

(iii) An alternating current (ac) power source capable of applying 8,000 volts in 500 volt root-mean-squared per second (rms/s) steps shall be used. The unit shall be equipped with a circuit breaker to disconnect the power source at breakdown and a voltmeter to indicate the rms voltages.

(iv) The connectors of the test samples shall be immersed in the solution except for the twisted test leads of the test samples. Insert a copper ground electrode into the solution. The high voltage lead of the power source shall be attached to the test sample lead and the ground voltage lead of the power source shall be attached to ground. The voltage shall be applied to the test sample in 500 volt rms/s steps until either breakdown or 8,000 volts rms is reached. The dielectric strength shall be recorded in rms voltage at the point of breakdown. Breakdown occurring at less than 2,500 volts rms shall constitute a failure.

(v) The dielectric breakdown test shall be repeated for all the remaining test samples prepared in accordance with paragraph (c)(9)(i) of this section. The test results shall be reported for each test sample.

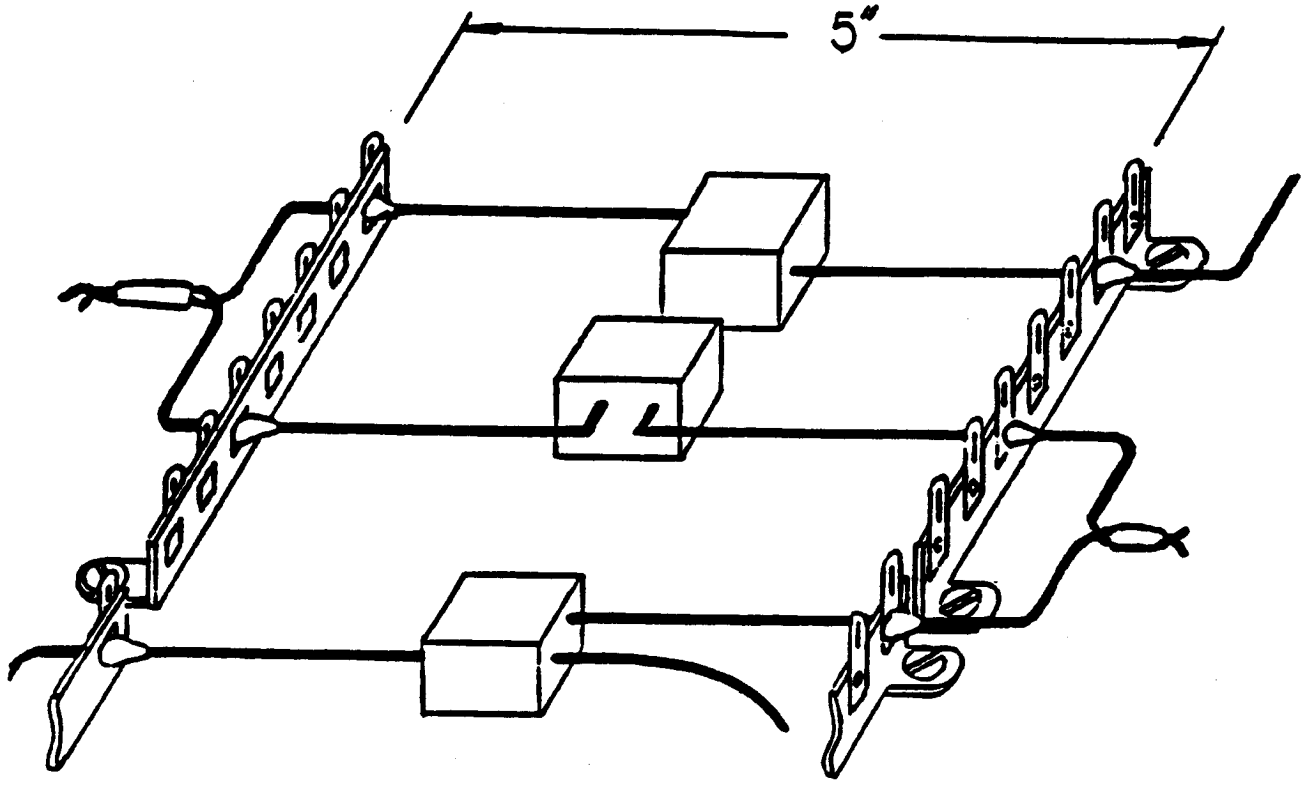
(10) *Current Cycle:* (i) Twenty (20) 4 in. (102 mm) pieces shall be cut from the appropriate gauged wire and assembled in the connectors in accordance with paragraph (c)(2) of this section using the connector manufacturer's instructions. For the current cycling, only the first two types of samples specified in paragraph (c)(2)(i) of this section shall be used for a total of ten (10) samples to be tested. For the current cycling test, expose the copper conductors of the test leads by removing 0.5 in. to 1 in. (12 mm to 25 mm) of insulation from the ends of the test leads.

(ii) A rack with mounting lugs spaced 5 in. (127 mm) apart shall be used for the test. The test leads of the first five (5) test samples shall be carefully bent and straightened so that the test samples lie approximately midway between the mounting lugs. The test leads between the mounting lugs shall be under no tension. The ends of the test leads shall be soldered to the mounting lugs. The test setup shall be as shown in Figure 6. Figure 6 is as follows:

BILLING CODE 3410–15–P

Figure 6

Current Cycle Test



BILLING CODE 3410–15–C

(iii) The first set of five (5) test samples shall be connected in series with an ammeter and a power source. The power source shall be adjusted to the ''Initial'' current specified in Table 1. The voltage drop across each test sample at the mounting lugs shall be measured. The power source shall then be adjusted to the ''Test'' current specified in Table 1. The ''Test'' current shall be applied to the test samples for 45 minutes and then off for 15 minutes. The application of the ''Test'' current for a period of 45 minutes on and a period of 15 minutes off shall constitute one (1) cycle. Fifty (50) current cycles shall be applied to the test samples.

TABLE 1.—TEST CURRENTS

Wire size (AWG)	''Initial'' and ''Final'' current (amps)	Test current (amps)
19	11	14
22	9	11
24	4.5	5.6
26	3	3.8

(iv) At the completion of the fifty (50) cycles, the current on the test samples shall be reduced to the ''Final'' current indicated in Table 1. The voltage drop across each test sample at the lug shall be measured and compared with the initial measurements specified in paragraph (c)(10)(iii) of this section. An increase in the voltage drop greater than 5 percent for each test sample shall constitute failure.

(v) The second set of five (5) samples shall be tested in accordance with the procedures specified in paragraphs (c)(10)(iii) and (c)(10)(iv) of this section. The connectors shall be tested using the appropriate current for the specific wire size indicated in Table 1.

(11) *Tensile test.* (i) Thirty (30) 10 in. (254 mm) pieces shall be cut from appropriate gauged wire and assembled in the connectors in accordance with paragraph (c)(2) of this section using the connector manufacturer's instructions.

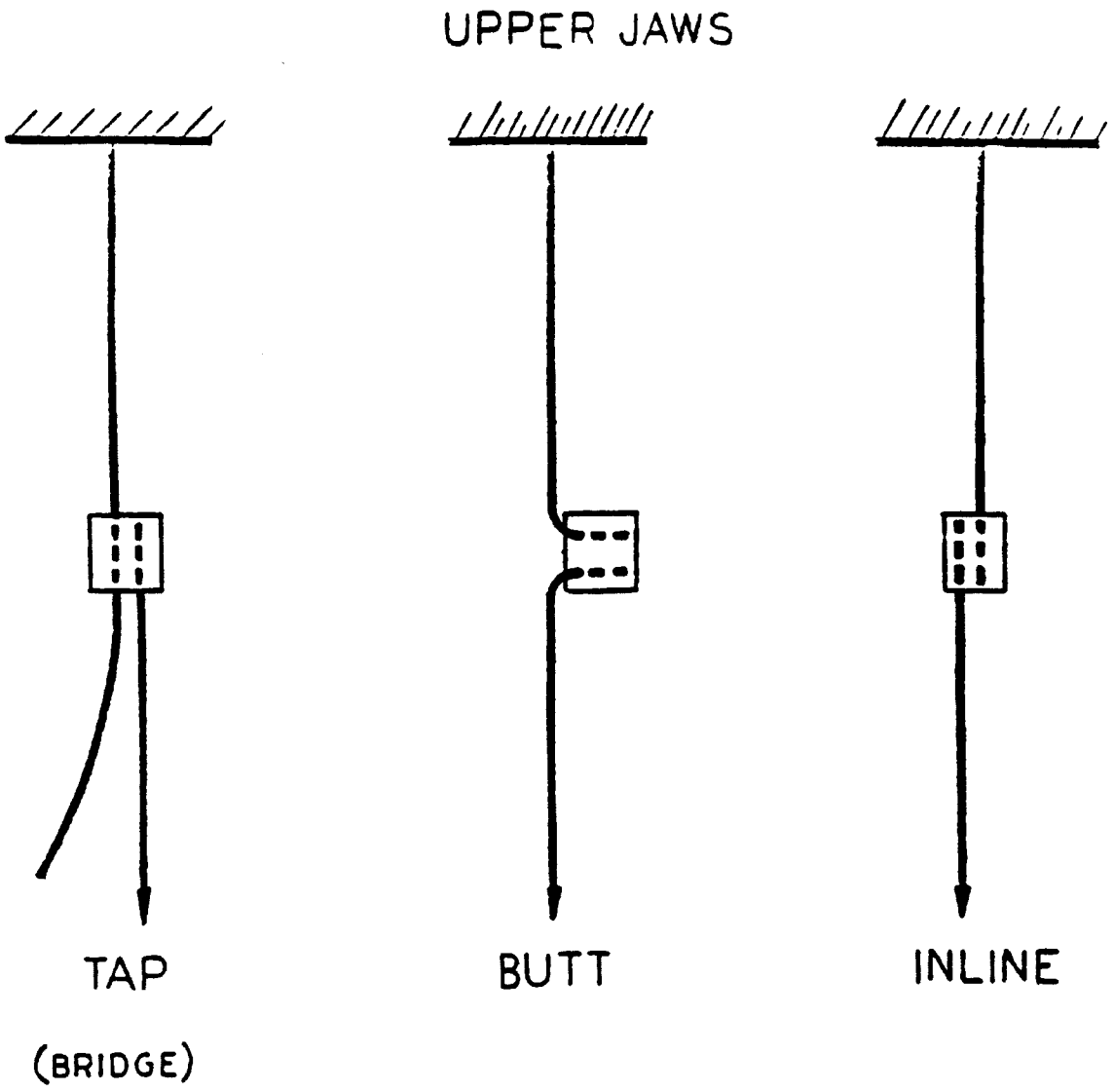
(ii) Three (3) samples of each control wire gauge shall be tested using a tensile machine with a jaw separation speed of 2 in. (51 mm) per minute, to determine average breaking strength of each control wire gauge.

(iii) Each test sample assembled in accordance with paragraph (c)(11)(i) of this section shall be tested for either ''Pull-out'' or ''Break'' using a tensile machine with a jaw separation speed of 2 in. (51 mm) per minute. The test setup for the ''Pull-out'' or ''Break'' test shall be in accordance with Figure 7. The ''Pull-out'' or ''Break'' shall not be less than 60 percent of the average breaking strength of each control wire size recorded in paragraph (c)(11)(ii) of this section. For the five (5) test samples that include the largest and smallest gauge wires, the ''Pull-out'' or ''Break'' measurement shall be compared to the smallest control wire gauge breaking strength recorded in paragraph (c)(11)(ii) of this section. Figure 7 is as follows:

BILLING CODE 3410–15–P

Figure 7

Tensil Test



BILLING CODE 3410–15–C

(d) *Performance criteria and test procedures for mechanical fiber optic splices*—(1) *Mechanical fiber optic splices shall be classified according to their functions listed below.* (i) Passive splicing—mechanically joining two fibers.

(ii) Tunable splicing—mechanically joining two fibers using an active loss measuring system for adjusting splice elements for the lowest loss during assembly.

(iii) Mass splicing—mechanically joining multiple fibers simultaneously.

(2) A mechanical fiber optic splice shall be so constructed that when assembled it shall have a resistance to optical decoupling. The mechanical splice assembly shall not optically decouple at less than a specified value of axial tension.

(3) Optical requirements for multimode and single mode optical splices shall be in accordance with Table 2. Methods of test to determine insertion and return loss shall be in accordance with EIA–455–34, EIA–455–171, or EIA/TIA–455–107.

TABLE 2.—OPTICAL REQUIREMENTS; MECHANICAL FIBER OPTIC SPLICES

Splice type	Single mode		Multimode
	Insertion loss [Decibels (dB)]	Return Loss (dB)	Insertion Loss (dB)
Passive	0.20	−35	0.15
Tunable	0.05	−35	0.15
*Mass	0.50	−35	0.15

*Loss results for mass splicing techniques must be averaged.

(4) Mechanical fiber optic splices shall be capable of resisting mechanical stresses associated with installation and service without impairment of the splice integrity.

(5) Single mode and multimode mechanical fiber optic splices shall be tested for mechanical reliability in accordance with the test methods specified in Table 3. After each mechanical test, the single mode and multimode mechanical fiber optic splices shall be in accordance with the requirements specified in Table 2 of paragraph (d)(3) of this section.

TABLE 3.—MECHANICAL TESTS; MECHANICAL FIBER OPTIC SPLICES

Test	Procedure	Requirement
Re-coupling durability (if appropriate)	EIA–455–21	25 Cycles.
Fiber Retention	EIA–455–6A	0.45 Kilograms Force (1.0 Pounds).
Vibration	TIA/EIA–455–11B	10–55 Hertz, 10 Grams.

(6) Single mode and multimode mechanical fiber optic splices shall be tested for environmental reliability in accordance with the test methods specified in Table 4. After each environmental test, the single mode and multimode mechanical fiber optic splices shall be in accordance with the requirements specified in Table 2 of paragraph (d)(3) of this section.

TABLE 4.—ENVIRONMENTAL TESTS; MECHANICAL FIBER OPTIC SPLICES

Test	Procedure	Requirement
Humidity	TIA/EIA–455–5B	>90% Relative Humidity, 40°C, 240 Hours.
Thermal Cycling	EIA/TIA–455–3A	−40°C to 80°C, 100 Cycles.
Water Immersion	EIA/TIA–455–12	40° C, 240 Hours.
Material Aging	EIA–455–4A	84° C, 2000 Hours.

(e) *Packaging, identification, and documentation.* (1) The packaging shall include identification of the manufacturer, splice model number, and date of manufacture. All necessary parts shall be shipped in one container unless significant advantages to the user will result otherwise.

(2) Complete documentation shall be included with the packaging to provide the following information:

(i) Use and application;

(ii) Set-up and assembly;

(iii) Testing;

(iv) Repair;

(v) Field installation;

(vi) Auxiliary Equipment; and

(vii) Storage Instructions.

(f) *RUS acceptance procedure.* (1) The tests described in this specification are required for acceptance of product designs and major modifications of accepted designs. All modifications shall be considered major unless otherwise declared by RUS. These tests are intended to demonstrate the capability of the manufacturer to produce splice components which meet service requirements of RUS Telecommunications borrowers.

(2) For initial acceptance the manufacturer shall:

(i) Certify that the product fully complies with each paragraph of this specification, and submit supporting test data;

(ii) Submit catalog numbers for the splice;

(iii) Submit quality assurance data which is representative of at least three production lots and which demonstrate the reliability of an ongoing quality assurance program;

(iv) Certify whether the product complies with the domestic origin manufacturing provisions of the ''Buy American'' Requirement of the Rural Electrification Act of 1938 (7 U.S.C 903 note), as amended (the ''REA Buy American Provision'');

(v) Submit at least three user testimonials concerning field performance of the product;

(vi) Submit descriptive information concerning the splice;

(vii) Submit assembly and usage instructions for the splice;

(viii) Submit product identification information;

(ix) Submit information concerning the packaging and shipment of the splice to customers;

(x) Submit an Occupational Safety and Health Administration (OSHA) Material Safety Data Sheet for the appropriate splice components;

(xi) Submit one production sample of the splice;

(xii) Submit one sample of a completed splice;

(xiii) Agree to provide plant inspections by RUS; and

(xiv) Provide any other nonproprietary data deemed necessary by the Chief, Outside Plant Branch (Telecommunications).

(3) Requalification of a manufacturer's product shall be required every 2 years after initial acceptance of that product. In order for RUS to consider a manufacture's request that a product be requalified, the manufacturer shall certify, that the product:

(i) Fully complies with each paragraph of this specification; and

(ii) Does or does not comply with the domestic origin manufacturing provisions of the REA ''Buy American'' provisions. The required certifications shall be dated within 90 days of the submission.

(4) Initial and requalification acceptance requests should be addressed to: Chairman, Technical Standards Committee ''A'' (Telecommunications), Telecommunications Standards Division, Rural Utilities Service, 1400 Independence Ave, SW, STOP 1598, Washington, DC 20250–1598.

Dated: September 17, 1998.

Jill Long Thompson,

Under Secretary, Rural Development.

[FR Doc. 98–25575 Filed 9–23–98; 8:45 am]

BILLING CODE 3410–15–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of Federal Housing Enterprise Oversight

12 CFR Part 1780

RIN 2550–AA04

Rules of Practice and procedure

AGENCY: Office of Federal Housing Enterprise Oversight, HUD.

ACTION: Notice of proposed rulemeking.

SUMMARY: The Office of Federal Housing Enterprise Oversight is proposing to adopt a regulation that establishes the rules of practice and procedure to be followed when OFHEO conducts hearings on the record. The proposed regulation implements the provisions of title XIII of the Housing and Community Development Act of 1992, known as the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, regarding hearings on the record in certain enforcement actions against the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, or directors or executive officers of the Enterprises. The proposed regulation would provide OFHEO personnel, the Enterprises, the Enterprises' directors and executive officers and other interested parties with the guidance necessary to prepare for and participate in such hearings.

DATES: Written comments regarding the Notice of Proposed Rulemaking must be received on or before December 23, 1998.

ADDRESSES: Send written comments to Anne E. Dewey, General Counsel, Office of General Counsel, Office of Federal Housing Enterprise Oversight, 1700 G Street, NW., Fourth Floor, Washington, DC 20552. Alternatively, comments may be submitted via E-mail to RegComments@ofheo.gov.

FOR FURTHER INFORMATION CONTACT: David A. Felt, Associate General Counsel, Office of Federal Housing Enterprise Oversight, 1700 G Street, NW., Fourth Floor, Washington, DC 20552, telephone (202) 414–3750 (not a toll-free number). The telephone number for the Telecommunications Device for the Deaf is: (800) 877–8339.

SUPPLEMENTARY INFORMATION: The Supplementary Information is organized according to this table of contents:

I. Background

Title XIII of the Housing and Community Development Act of 1992, Pub. L. No. 102–550, known as the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (1992 Act), established the Office of Federal Housing Enterprise Oversight (OFHEO) as an independent office within the Department of Housing and Urban Development (HUD) to ensure that the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) (collectively, the Enterprises) are adequately capitalized and operate in a safe and sound manner. Included among the express statutory authorities of the Director of OFHEO (Director) is the authority to issue regulations to carry out the duties of the Director,[1] to conduct hearings relating to the issuance of cease-and-desist orders and the assessment of civil money penalties.[2] Prior to issuing a cease-and-desist order, OFHEO must conduct hearings on the record and provide the subjects of the order with notice and the opportunity to participate in such hearings.[3] Prior to imposing civil money penalties, OFHEO must provide notice and the opportunity for a hearing to the persons subject to the penalties. The 1992 Act grants responsibility for developing the rules of practice and procedure governing issuance of these orders and penalties, including the conduct of hearings, to OFHEO.[4] Fannie Mae and Freddie Mac are Government-sponsored enterprises with important public purposes. These purposes include providing liquidity to the residential mortgage market and increasing the availability of mortgage credit benefiting low- and moderate-income families, rural areas, central cities, and areas that are underserved by lending institutions. The Enterprises engage in two principal businesses: investing in residential mortgages and guaranteeing residential mortgage securities. The securities they guarantee and the debt instruments they issue are not backed by the full faith and credit of the United States.[5] Despite the absence of such Federal backing, prices of Enterprise debt securities reflect a market perception that the U.S. Government would not permit the Enterprises to default. This perception principally arises from the public purposes of the Enterprises, their Federal charters, their potential access to a U.S. Treasury line of credit and the statutory exemptions of their debt and mortgage-backed securities from otherwise mandatory investor protection provisions.[6] This perception

[1] 1992 Act, section 1319G(a) (12 U.S.C. 4526(a)).

[2] 1992 Act, sections 1371, 1376 (12 U.S.C. 4631, 4636).

[3] 1992 Act, sections 1371, 1376(c) (12 U.S.C. 4631(c), 4636(c)).

[4] 1992 Act, section 1313 (12 U.S.C. 4513).

[5] Sections 301(4), 306(h)(2), Federal Home Loan Mortgage Corporation Act (12 U.S.C. *note* (b)(3, 4) to 1451, 1455(h)(2)); sections 301(4), 304(b), Federal National Mortgage Association Charter Act (12 U.S.C. 1716(3, 4), 1719(b); and section 1302(4), 1992 Act (12 U.S.C. 4501(4)).

[6] *See, e.g.*, 12 U.S.C. 24 (authorizing unlimited investment by national banks in obligations of, or issued by, the Enterprises); 12 U.S.C. 1455(g), 1719(d), 1723c (exempting Enterprise securities from oversight from Federal regulators); 15 U.S.C. 77r–1(a) (preempting State law that would treat Enterprise securities differently from obligations of the United States for investment purposes); and 15

Continued