

which RUS provides financial assistance. (See part 1792, subpart C, of this chapter.)

(2) The borrower shall provide evidence, satisfactory in form and substance to the Administrator, that each building will be designed and built in compliance with all Federal, State, and local requirements.

(f) *Communications and control.* (1) This section covers microwave and powerline carrier communications systems, load control, and supervisory control and data acquisition (SCADA) systems.

(2) The performance considerations for a new or replacement master system must be approved by RUS. A master system includes the main controller and related equipment at the main control point. Performance considerations include all major system features and their justification, including, but not limited to, the objectives of the system, the types of parameters to be controlled or monitored, the communication media, alternatives considered, and provisions for future needs.

§ 1724.52 Permitted deviations from RUS construction standards.

The provisions of this section apply to all borrower electric system facilities regardless of the source of financing.

(a) *Structures for raptor protection.* (1) RUS standard distribution line structures may not have the extra measure of protection needed in areas frequented by eagles and other large raptors to protect such birds from electric shock due to physical contact with energized wires. Where raptor protection in the design of overhead line structures is required by RUS; a Federal, State or local authority with permit or license authority over the proposed construction; or where the borrower voluntarily elects to comply with the recommendations of the U.S. Fish and Wildlife Service or State wildlife agency, borrowers are permitted to deviate from RUS construction standards, provided:

(i) Structures are designed and constructed in accordance with “Suggested Practices for Raptor Protection on Powerlines: The State of the Art in

1996” (Suggested Practices for Raptor Protection); and,

(ii) Structures are in accordance with the NESC and applicable State and local regulations.

(2) Any deviation from the RUS construction standards for the purpose of raptor protection, which is not in accordance with the Suggested Practices for Raptor Protection, must be approved by RUS prior to construction. “Suggested Practices for Raptor Protection on Powerlines: The State of the Art in 1996,” published by the Edison Electric Institute/Raptor Research Foundation, is hereby incorporated by reference. This incorporation by reference is approved by the Director of the Office of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of this publication may be obtained from the Raptor Research Foundation, Inc., c/o Jim Fitzpatrick, Treasurer, Carpenter Nature Center, 12805 St. Croix Trail South, Hastings, Minnesota 55033. It is also available for inspection during normal business hours at RUS, Electric Staff Division, 1400 Independence Avenue, SW., Washington, DC, Room 1246-S, and at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

(b) *Transformer neutral connections.* Where it is necessary to separate the primary and secondary neutrals to provide the required electric service to a consumer, the RUS standard transformer secondary neutral connections may be modified in accordance with Rule 97D2 of the NESC.

(c) *Lowering of neutral conductor on overhead distribution lines.* (1) It is permissible to lower the neutral attachment on standard construction pole-top assemblies an additional distance not exceeding two feet (0.6 m) for the purpose of economically meeting the clearance requirements of the NESC.

(2) It is permissible to lower the transformer and associated neutral attachment up to two feet (0.6 m) to provide adequate clearance between the cutouts and single-phase, conventional distribution transformers.

(3) It is permissible to lower the neutral attachment on standard construction pole-top assemblies an additional distance of up to six feet (2 m) for the

purpose of performing construction and future line maintenance on these assemblies from bucket trucks designed for such work.

§ 1724.53 Preparation of plans and specifications.

The provisions of this section apply to all borrower electric system facilities regardless of the source of financing.

(a) *General.* (1) The borrower (acting through the engineer, if applicable) shall prepare plans and specifications that adequately represent the construction to be performed.

(2) Plans and specifications for distribution, transmission, or generating facilities must be based on a construction work plan (as amended, if applicable), engineering study or construction program which has been approved by RUS if financing for the facilities will at any time be requested from RUS.

(b) *Composition of plans and specifications package.* (1) Whether built by force account or contract, each set of plans and specifications must include:

(i) *Distribution lines.* Specifications and drawings, staking sheets, key map and appropriate detail maps;

(ii) *Transmission lines.* Specifications and drawings, transmission line design data manual, vicinity maps of the project, a one-line diagram, and plan and profile sheets;

(iii) *Substations.* Specifications and drawings, including a one-line diagram, plot and foundation plan, grounding plan, and plans and elevations of structure and equipment, as well as all other necessary construction drawings, in sufficient detail to show phase spacing and ground clearances of live parts;

(iv) *Headquarters.* Specifications and drawings, including:

(A) A plot plan showing the location of the proposed building plus paving and site development;

(B) A one line drawing (floor plan and elevation view), to scale, of the proposed building with overall dimensions shown; and

(C) An outline specification including materials to be used (type of frame, exterior finish, foundation, insulation, etc.); and

(v) *Other facilities (e.g., generation and communications and control facilities).*

Specifications and drawings, as necessary and in sufficient detail to accurately define the scope and quality of work required.

(2) For contract work, the appropriate standard RUS construction contract form shall be used as required by part 1726 of this chapter.

§ 1724.54 Requirements for RUS approval of plans and specifications.

The provisions of this section apply only to RUS financed electric system facilities.

(a) For any contract subject to RUS approval in accordance with part 1726 of this chapter, the borrower shall obtain RUS approval of the plans and specifications, as part of the proposed bid package, prior to requesting bids. RUS may require approval of other plans and specifications on a case by case basis.

(b) *Distribution lines.* RUS approval of the plans and specifications for distribution line construction is not required if standard RUS drawings, specifications, RUS accepted material, and standard RUS contract forms (as required by part 1726 of this chapter) are used. Drawings, plans and specifications for nonstandard distribution construction must be submitted to RUS and receive approval prior to requesting bids on contracts or commencement of force account construction.

(c) *Transmission lines.* (1) Plans and specifications for transmission construction projects which are not based on RUS approved line design data or do not use RUS standard structures must receive RUS approval prior to requesting bids on contracts or commencement of force account construction.

(2) Unless RUS approval is required by paragraph (a) of this section, plans and specifications for transmission construction which use previously approved design data and standard structures do not require RUS approval. Plans and specifications for related work, such as right-of-way clearing, equipment, and materials, do not require RUS approval unless required by paragraph (a) of this section.

(d) *Substations.* (1)(i) Plans and specifications for all new substations must