XVI. SPECIFICATIONS

SPECIFICATION #1: FOR DIRECT BURIED INSTALLATION OF UNDERGROUND SERVICE TO RESIDENTIAL BUILDINGS (URD-SINGLE FAMILY DWELLINGS)

The following materials and methods are approved by the New York State Electric & Gas Corporation for use by the applicant when installing a direct buried service lateral to a single family dwelling in a subdivision where the electric distribution facilities are underground.

A. **Services**

1. **Material**

The service cable assembly shall consist of aluminum or copper phase conductors, insulated with .080 inches black cross-linked polyethylene and a neutral conductor, insulated with .080 inches black cross-linked polyethylene with yellow or yellow striped coloring. The two phase conductors and one neutral conductor are to be triplexed and rated at 600 volts, manufactured and tested in accordance with the specifications of the ICEA publication # S-66-524, NEMA publication # WC7, latest edition or, Underground Service Entrance Cable (USE rated). The conductor shall be sized per the National Electrical Code (NEC) Article 310.

B. **Sizes**

1. 150 Amp Service – Minimum Size Permitted
2. 200 Amp Service
3. 400 Amp Service

C. **Services larger than 400 Amp**

For loads requiring installation of a service rated at more than 400 amperes, consult the New York State Electric & Gas Corporation.

D. **Service Location**

The New York State Electric & Gas Corporation will designate the service connection point at the building and the point the service lateral will connect to the electric distribution lines or equipment.

E. **Installation**

1. A continuous length of cable, free of splices, shall be direct buried with a minimum of 24 inches of cover from the meter to the point of connection with the utility system.

2. The cable shall be protected with conduit as it enters the meter as shown on Figure 23. Under driveways, sidewalks, patios, and other paved areas the cable must be protected by approved conduit. This conduit may be:

   a. Fiber, or similar duct material encased in a 3" concrete envelope.

   b. Galvanized steel conduit. If steel conduit is used, an insulating bushing shall be installed at each end of conduit.

   c. Non-metallic duct designed and approved for use without a concrete envelope or other covering.

3. Underground service conductors that are not encased in concrete and that are buried 18” or more below grade shall have their location identified by a warning ribbon that is place in the trench at least 12” above the underground installation.

4. The backfill must be soil, free of rock, stone, or other foreign material.

5. The customer will make all connections in the meter or entrance box, and install service to within 2 ft. of handhole or transformer foundation and leave 10 ft. of cable coiled. (See Figure 23.)

6. Cable ends will be adequately sealed. The cable is to be protected and left for inspection by an authorized inspection organization acceptable to the Company.

7. Upon receipt of a certified inspection, the New York State Electric & Gas Corporation will connect the service cable to its distribution system.

F. **Inspection**

Service cable which is installed by the applicant must be inspected and approved by an authorized inspection organization acceptable to the Company before the cable trench may be backfilled.

SPECIFICATION #2: FOR CUSTOMER'S PREASSEMBLED METER PEDESTAL

1. The pedestal unit shall be submitted to the Company for review prior to purchase.

2. The pedestal to be constructed of minimum #14 gauge zinc coated steel.

3. Base of pedestal to be suitably corrosion protected for padmounting in outdoor atmosphere or for setting in concrete and earth.

4. The meter compartment **shall not** be of the enclosed or overall enclosure type.

5. At least one side of the pedestal to be hinged or removable for access to the interior, with a provision for padlocking.

6. The line terminals and socket terminals to be prewired and shall be located in a separate wireway from the load terminals or outlets.

7. Access to the line terminals to be possible only through a door or cover with provision for padlocking.

8. The socket terminal blocks to be of porcelain or phenolic and mounted to provide adequate support.

9. Meter sockets to be of the ringless type with a fifth (5th) terminal provided on the meter block and mounted in the 9 o'clock position.

10. Line terminals shall be capable of accepting #1/0 AWG-350 MCM copper or aluminum conductors.

11. Pedestal to be able to withstand without damage a concentrated force of 70 lbs. applied to the meter socket.

12. When supplied with--

a. Main breaker--continuous current rating shall be 150 amperes minimum.

b. Main breaker--shall have interrupting rating of 10,000 amperes minimum.

c. Receptacles--shall have provision for receptacle(s) and a permanent wiring method in accordance with the National Electrical Code.

13. Ground lugs shall be of adequate size to accommodate 2-#4 AWG copper ground wires.

14. Extra care should be taken to install posts, pedestals and meters in a true vertical position.

15. See Figure #25 for drawing and installation specifications.

SPECIFICATION #3: FOR CUSTOMER SUPPLIED 100 AMPERE AND 200 AMPERE SELF-CONTAINED NON-BYPASS METER SOCKET

For residential services, the Customer will install, own and maintain all 100-ampere and 200-ampere self-contained, non-lever bypass type meter sockets. Meter sockets supplied by the Customer must meet the following requirements:

Conform to the latest revision of ANSI/UL 414, ANSI C12.7, NEMA 250, NFPA and other relevant standards.

Must be UL approved and carry the UL label.

Be of a ringless design and include a horn style by-pass mechanism suitable for connecting insulated jumper leads for use in installing or removing the meter. This enables the Company to test or exchange the meter without causing a service interruption.

At minimum, the enclosure of the meter sockets must be of NEMA TYPE 3R design (an enclosure intended for outdoor use to provide a degree of protection against windblown dust and rain). Other NEMA TYPE designs or enclosures with multiple TYPE designs are allowed as long as the minimum environmental requirements of TYPE 3R are met.

Have a sealing mechanism, which allows the socket cover to be sealed to the meter socket body by a Company padlock seal. The sealing mechanism must be made of stainless steel.

Individual meter sockets shall be rated for 100 amperes or 200 amperes continuous load. For a 100 ampere service it is permissible to use a higher rated meter socket up to 200 amperes continuous.

Each position of a ganged meter socket shall be rated for 200 amperes continuous. The design of a ganged meter socket shall allow for the cover to be opened, closed, and sealed individually.

The Company shall furnish all meter sockets for non-residential accounts and for any service greater than 200 amperes. If self-contained, these meter sockets are required to have a single handle, lever operated by-pass, which locks the meter blades in the socket jaws. This by-pass mechanism enables the Company to test or exchange the meter without causing an interruption in service.

Specifications for meter sockets of more than four positions and meter pedestal assemblies shall be submitted to the Company for review and concurrence prior to purchase. Only multi-socket equipment specifically designed for that

application will be used to feed additional meter positions. (For example, two, two-position multiple socket assemblies will not be used as a four-position assembly, the second fed from the first.) For additional information on pedestal assemblies, see Figure 25 and adjoining installation specification.

UPDATE HISTORY

REVISED SHEETS		MODIFICATION
SECTION	PAGE	
XV	78-79	DATE: 9/8/03 REMOVED FIGURES 31 & 31A REVISED BACK TO EXISTING CLEARANCES FOR APPROPRIATE CLEARANCES: REFERENCE ELECTRIC DISTRIBUTION ENGINEERING AND CONSTRUCTION STANDARDS – UNDERGROUND – SECTION 3

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