SECTION 26 0513 - MEDIUM-VOLTAGE CABLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes medium voltage shielded power cables, sizes 1/0 through 2000 kcmil, related splices, terminations, and accessories for medium-voltage electrical distribution systems, nominal 2.4 kV through 15 kV services.

1.3 DEFINITIONS

A. NETA ATS: National Electrical Testing Association Acceptance Testing Specification.

B. AIA: Aluminum Interlocked Armor.

1.4 ACTION SUBMITTALS

A. Product Data: For each

1.6 QUALITY ASSURANCE

A. Installer: Engage a cable splicer, trained and certified by splice material manufacturer, to install, splice, and terminate medium-voltage cable. Cable splicer shall have a minimum of 2000 hours experience with terminating and installing medium voltage cable. Furnish satisfactory proof of such experience for each employee who splices or terminates the cables prior to any work. Submit names and service dates of proposed employees. Persons listed by the Contractor may be required to perform a dummy or practice splice and termination in the presence of the Electrical Shop representative and Engineer before being approved as a qualified installer of medium-voltage cables.

B. Source Limitations: Obtain cables and accessories through one source from a single manufacturer.

C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

D. Comply with IEEE C2 and NFPA 70.

E. Comply with ASTM B3 and B8.

F. NRTL (Nationally Recognized Testing Laboratory) Listing: Products shall be listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction for electrical and fire safety.

G. Comply with most current edition of the Northwestern University Design Standards.

1.7 PROJECT CONDITIONS (Delete If Not Required)

A. [Interruption of Existing Electric Service: Do not interrupt electric service to facilities occupied by the University or others unless permitted under the following conditions and then only after arranging to provide temporary electric service according to requirements indicated:

1. Notify the University's Chief Electrician no fewer than [two] calendar weeks in advance of proposed interruption of electric service.
2. Do not proceed with interruption of electrical service without the University's Chief Electrician's written permission .
3. University Lock-out/Tag-out procedures shall be used with Contractor controlled locks and tags.
4. Comply with NFPA 70E .]

PART 2 - PRODUCTS

2.1 Mtorh6u

B. Manufacturers: Subject to compliance with requirements, provide products by the following: 3M

C. Splicing Products: As recommended, in writing, by splicing kit manufacturer for specific sizes, ratings, and configurations of cable conductors. Include all components required for complete splice, with detailed instructions.

1. Heat-shrink splicing kit of uniform, cross-section, polymeric construction with outer heat-shrink jacket.
2. Pre-molded, cold-shrink-rubber, in-line splicing kit.

2.4 SOLID TERMINATIONS

A. Manufacturers: Subject to compliance with requirements, provide products by the following: 3M

B. Multi-conductor Cable Sheath Seals: Type recommended by seal manufacturer for type of cable and installation conditions, including orientation.

1. Compound-filled, cast-metal body, metal-

NORTHWESTERN UNIVERSITY

B. Cables for all ci

P. Arc Proofing: Unless otherwise indicated, arc proof medium-voltage cable at locations not protected by conduit, cable tray, or termination materials such as transformers, switchgear, and manholes. In addition to arc-proofing tape manufacturer's written instructions, apply arc proofing as follows:

1. Clean cable sheath.
2. Wrap metallic cable components with 10-mil (250-micrometer) pipe-wrapping tape.
3. Smooth surface contours with electrical insulation putty.
4. Apply arc-proofing tape in one half-lapped layer with coated side toward cable.

THIS PAGE IS INTENTIONALLY BLANK