SECTION 16142

ELECTRICAL CONNECTIONS FOR EQUIPMENT

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

A. The work of this section consists of providing labor, materials, tools, appliances and miscellaneous accessories associated with the electrical connections for equipment indicated by drawings and schedules.

B. Electrical connections are hereby defined to include, but not necessarily be limited to, connections for providing electrical power to equipment, splices, and taps.

1.2 RELATED DOCUMENTS

A. Drawings

B. General provisions of Contract, including General and Supplementary Conditions.

C. Division 01 - Specification Section.

D. Section 16010 - General Electrical Provisions.

1.3 RELATED WORK SPECIFIED ELSEWHERE

A. Motor starters and controls furnished integrally with equipment.

B. Control system wiring.

PART 2 - PRODUCTS

2.1 MATERIALS AND COMPONENTS

A. General: For each electrical connection indicated, provide complete assembly of materials, including but not necessarily limited to, pressure connectors, terminals (lugs) electrical insulating tape, electrical solder, electrical soldering flux, heat-shrinkable insulating tubing, cable ties, solderless wire nuts, and other items and accessories as needed to complete splices and termination of types indicated.

B. Wire, Cable and Connectors:

1. Wire: Unless otherwise indicated, provide wires/conductors for electrical connections which match wires/conductors of wiring supplying power.

2. Connectors and Terminals: Provide electrical connectors and terminals as recommended by connector and terminal manufacturer for intended applications.

C. Electrical Connection Accessories: Provide electrical insulating tape, heat-shrinkable insulating tubing and boots, solder, electrical soldering flux, wire nuts and cable ties as recommended for use by accessories manufacturers for type services indicated.

D. Taps, Splices & Terminations: All secondary feeder taps shall be made of cast copper, 2-bolt type connector, with insulating covers. Terminals connections shall be made with 2-bolt, clamp type lugs.

E. Taps and splices for branch circuit wiring #14 to #6 shall be made with approved solderless pressure spring connectors with insulating covers.

F. Tape shall be Scotch #33 and shall be applied so that the insulation is not less than that of the wire.

H. Cable supports shall consist of composition cable clamps.

PART 3- EXECUTION

3.1 INSTALLATION OF ELECTRICAL CONNECTIONS

A. Install electrical connections as indicated, in accordance with connector manufacturer's written instructions and with recognized industry practices, and complying with requirements of NEC and NECA's "Standard of Installation" to ensure that products fulfill requirements.

B. Connect electrical power supply conductors to equipment conductors in accordance with equipment manufacturer's written instructions and wiring diagrams. Wherever possible, mate and match conductors of electrical connections for proper interface between electrical power supplies and installed equipment.

C. Coordinate installation of electrical connections for equipment with equipment installation work.

D. Cover splices with electrical insulation equivalent to, or of higher rating, than insulation on conductors being spliced.

E. Prepare cables and wires, by cutting and stripping, covering armor, jacket, and insulation properly to ensure uniform and neat appearance where cables and wires are terminated.

F. Trim cables and wires as short as practicable and arrange routing to facilitate inspection, testing and maintenance.

G. Tighten wire-binding connector screws firmly.

H. Refer to Basic Electrical Requirements Section 16010 for identification of electrical power supply conductor terminations with markers approved as to types, colors, letter and marker sizes, by Architect/Engineer. Affix markers at each point of termination, as close as possible to each point of connection.

END OF SECTION