SECTION 26 27 26 – WIRING DEVICES

PART 1 - GENERAL

1.1 THE REQUIREMENT

A. The CONTRACTOR shall provide all wiring devices, plates, and nameplates in accordance with the Contract Documents.

B. The requirements of Section 26 05 00 – Electrical Work, General apply to this Section.

C. Single Manufacturer: Like products shall be the end product of one manufacturer in order to achieve standardization of appearance, operation, maintenance, spare parts, and manufacturer's services.

1.2 CONTRACTOR SUBMITTALS

A. Furnish submittals in accordance with MASS Section 10.05 Article 5.6.

B. Shop Drawings
   1. Complete catalog cuts of switches, receptacles, enclosures, covers, and appurtenances, marked to clearly identify proposed materials.
   2. Documentation showing that proposed materials comply with the requirements of NEC and UL.
   3. Documentation of the manufacturer's qualifications.

PART 2 - PRODUCTS

2.1 GENERAL

A. All devices shall carry the UL label.

B. General purpose duplex receptacles and toggle switch handles shall be brown everywhere except in finished rooms where they shall be ivory. Special purpose receptacles shall have a body color as indicated. Receptacles and switches shall conform to Federal Specifications W-C-596E and W-S-896E, respectively.

2.2 LIGHTING SWITCHES

A. Local branch switches shall be toggle type, rated at 20 amps, 120-277 VAC, and shall be General Electric Cat. No. GE-5951-1 for single pole, GE-5953-1 for 3-way and GE-5954-1 for 4-way, or similar types as manufactured by Hubbell, or equal.
2.3 GENERAL PURPOSE RECEPTACLES

A. Duplex receptacles rated 120-volt, 20 amps shall be polarized 3-wire type for use with 3-wire cord with grounded lead and 1 designated stud shall be permanently grounded to the conduit system (NEMA 5-20R). Duplex 120-volt receptacles shall be G.E. 5362, Hubbell 5362, or equal. Single receptacles shall be G.E. 4102, Hubbell 4102, or equal.

B. Ground-fault circuit interrupting receptacles (GFCI's) shall be installed at the locations indicated. GFCI's shall be rated 125-volt, 20 amps and shall be Hubbell GF-5362, or equal.

C. Receptacles for hazardous locations shall be single gang receptacles with spring door. Receptacles shall have a factory sealed chamber. The receptacles shall have a delayed action feature requiring the plug to be inserted in the receptacle and rotated before the electrical connection is made. The receptacle shall not work with non-hazardous rated plugs. One plug shall be furnished with each receptacle. The receptacles shall be rated for 20 amps at 125 VAC. Hazardous location receptacles shall be Appleton EFSB, Crouse-Hinds ENR, or equal.

D. Where indicated, hazardous location receptacles shall be provided with ground fault protection. Ground fault protection shall be Appleton EFSR-GFI, Crouse-Hinds GFS 1, or equal.

2.4 LOCKING RECEPTACLES

A. Receptacles for all existing chemical feed pumps and all new sump pumps shall be locking receptacles. Provide matching plugs.
   1. Single-phase locking receptacles shall be Pass & Seymour Turnlok L630-R receptacle and CRL630-P plug, or equal.
   2. Three-phase locking receptacles shall be 250-volt, 20-amp, 4-wire, Pass & Seymour Turnlok L1520-R receptacle and L1520-P plug, or equal.

2.5 GENERATOR PLUG RECEPTACLES

A. Generator Plug Receptacles: Generator plugs and receptacles shall be designed to supply power from portable equipment such as outdoor generator units. The devices shall be UL-listed for use outdoors and suitable for rough usage. The devices shall have the following features:
   1. Make first and break last neutral pin.
   2. Shell ground.
   3. Reverse service where the plug is energized and the receptacle is dead.
   4. Cable grip assembly.
   5. Arc snuffing chamber.
   6. Compressed neoprene bushing to prevent entrance of water.
   7. Suitable for use in cold weather down to -40F.
   8. Positive polarization.
9. Aluminum body and brass contacts.
10. Compliance with UL Standard 498, 1682, or 1686.
11. Rated for 600V AC.
12. 120V/240V single-phase units shall be 2-pole with a neutral and shell ground (3 pin).
13. 480V units shall be 3-pole with a neutral and shell round (5-pin).
15. Ring-threaded plug.
16. Suitable box as shown on the Contract Drawings.

B. Generator plug receptacle units shall be Appleton Powertite, or equal.

2.6 ENCLOSED AND COVERS

A. Surface mounted switches and receptacles shall be in FS or FD type cast device boxes.

B. In finished areas, switch and receptacle boxes shall be provided with SUPER STAINLESS STEEL COVERS as manufactured by Harvey Hubbell, Arrow Hart, Bryant, or equal.

C. In areas where cast boxes are used, switch and receptacle covers shall be Crouse-Hinds Catalogue No. DS185 and WLRD-1, or Adalet No. WSL and WRD, or equal.

D. Receptacles in exterior locations shall be with s-hinged cover/enclosure marked "Suitable for Wet Locations when in use" and "UL Listed." There shall be a gasket between the enclosure and the mounting surface and between the hinged cover and mounting plate/base. The cover shall be TayMac Specification Grade, or equal.

2.7 NAMEPLATES

A. Provide nameplates or equivalent markings on switch enclosures to indicate ON and OFF positions of each switch. ON and OFF for 3-way or 4-way switches is not acceptable. Provide receptacles for special purposes with nameplates indicating their use. Conform to requirements of Section 26 05 00 – Electrical Work, General.

PART 3 - EXECUTION

3.1 CONNECTION

A. Securely fasten nameplates using screws, bolts, or rivets centered under or on the device, unless otherwise indicated.
3.2 GROUNDING

A. Ground all devices, including switches and receptacles, in accordance with NEC, ART 250, and Section 26 05 26 – Grounding.

B. Ground switches and associated metal plates through switch mounting yoke, outlet box, and raceway system.

C. Ground flush receptacles and their metal plates through positive ground connections to outlet box and grounding system. Maintain ground to each receptacle by spring-loaded grounding contact to mounting screw or by grounding jumper, each making positive connection to outlet box and grounding system at all times.

3.3 FIELD TESTING

A. Provide checkout, field, and functional testing of wiring devices in accordance with Section 26 05 00 – Electrical Work, General.

B. Test each receptacle for polarity and ground integrity with a standard receptacle tester.

END OF SECTION 26 27 26