SECTION 16415 - DISCONNECT SWITCHES

1.0 GENERAL

1.1 DRAWINGS AND GENERAL PROVISIONS OF CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION-1 SPECIFICATION SECTIONS, APPLY TO WORK OF THIS SECTION.

1.2 DIVISION-16 BASIC ELECTRICAL MATERIALS AND METHODS SECTIONS APPLY TO WORK OF THIS SECTION.

1.3 SUBMITTALS: SUBMIT THE PRODUCER'S STANDARD DESCRIPTIVE DATA SHEETS FOR EACH TYPE OF PRODUCT BEING PROVIDED. MARK THE DATA SHEET FOR THE PRODUCT BEING PROVIDED WITH AN IDENTIFYING MARK OR ARROW.

1.3.1 SUBSTITUTIONS - PRIOR APPROVAL REQUIRED.

2.0 PRODUCTS

2.1 ACCEPTABLE PRODUCERS: CUTLER-HAMMER, GENERAL ELECTRIC, AND SQUARE D.

2.2 GENERAL: PROVIDE NEMA HEAVY DUTY TYPE H.D., UNDERWRITERS LABORATORIES LISTED SAFETY SWITCHES OF VOLTAGE, AMPERES, AND NUMBER OF POLES AS INDICATED ON THE DRAWINGS. LABEL FOR SERVICE ENTRANCE USE WHERE INDICATED ON THE DRAWINGS.

2.3 MECHANISM: SWITCH OPERATING MECHANISM SHALL BE QUICK MAKE, QUICK BREAK. SWITCHES SHALL HAVE A DUAL INTERLOCK TO PREVENT OPENING OF DOOR WHEN SWITCH IS IN "ON" POSITION OR CLOSING OF SWITCH WHEN DOOR IS IN "OPEN" POSITION.

2.4 SWITCH INTERIOR: INTERIOR OF SWITCH SHALL HAVE FULLY VISIBLE SWITCH BLADES IN "OFF" POSITION WHEN DOOR IS OPEN. SWITCHES SHALL BE DEAD FRONT CONSTRUCTION WITH PERMANENTLY ATTACHED ARC SUPPRESSORS HINGED OR OTHERWISE ATTACHED TO PERMIT EASY ACCESS TO LINE-SIDE LUGS, WITHOUT REMOVAL OF ARC SUPPRESSOR. LUGS SHALL BE UL LISTED FOR COPPER CONDUCTORS AND SHALL BE FRONT REMOVABLE. ALL CURRENT CARRYING PARTS SHALL BE TIN OR SILVER PLATED BY ELECTROLYTIC PROCESSES. PROVIDE GROUND LUG IN EACH SWITCH FOR GROUNDING CONDUCTOR.

2.5 ENCLOSURES: USE NEMA 3R ENCLOSURES FOR ALL EXTERIOR LOCATIONS AND INTERIOR LOCATIONS IN WET OR HUMID AREAS. USE NEMA 1 ENCLOSURES ELSE-WHERE, EXCEPT AS NOTED OTHERWISE ON THE DRAWINGS. FURNISH NEMA 1 SWITCHES WITH KNOCKOUTS. ENCLOSURES FOR NEMA 1 SWITCHES SHALL BE CODE GAUGE (UL 98) SHEET STEEL WITH RUST INHIBITING PHOSPHATE TREATMENT AND BAKED ENAMEL FINISH. NEMA 3R ENCLOSURES SHALL BE OF CODE GAUGE (UL 98) GALVANIZED STEEL WITH RUST INHIBITING PHOSPHATE AND BAKED ENAMEL FINISH.

2.6 RATINGS: SAFETY SWITCHES FOR MOTORS SHALL BE HORSEPOWER RATED FOR AC OR DC AS SPECIFIED ON THE DRAWINGS. ALL FUSIBLE SWITCHES RATED 100 THRU 600 AMPERES AT 240 VOLTS, AND 30 THRU 600 AMPERES AT 600 VOLTS, SHALL HAVE THE CAPABILITY OF FIELD CONVERSION FROM STANDARD CLASS H FUSE SPACING TO CLASS J FUSE SPACING WITHOUT AFFECTING THE UL LISTING. THE SWITCH ALSO MUST ACCEPT CLASS R FUSES AND HAVE FIELD INSTALLABLE UL LISTED REJECTION

FEATURE TO REJECT ALL FUSES EXCEPT CLASS R. UL LISTED SHORT CIRCUIT RATINGS, WHEN EQUIPPED WITH CLASS R FUSES SHALL BE 200,000 AMPERE RMS SYMMETRICAL. 800 AND 1200 AMPERE SWITCHES SHALL HAVE PROVISIONS FOR CLASS L FUSES.

3.0 EXECUTION

3.1 PROVIDE UNFUSED OR FUSED DISCONNECT SWITCH AS INDICATED ON THE DRAWINGS AT EACH MOTOR WHICH IS OUT OF SIGHT OF ITS CONTROLLER OR 50 OR MORE FEET AWAY FROM THE CONTROLLER.

3.2 DO NOT STACK SWITCHES TO TOUCH EACH OTHER, EITHER HORIZONTAL OR VERTICALLY. ALLOW SPACE BETWEEN ENCLOSURES.

3.3 SWITCH SYMBOLS ON ELECTRIC DRAWINGS DO NOT INDICATE EXACT SWITCH LOCATIONS. LOCATE SWITCHES ADJACENT TO MOTOR OR EQUIPMENT UNLESS SHOWN OTHERWISE.

3.4 CLEAN AND TOUCH-UP PAINT ON DISCONNECT SWITCHES DAMAGED OR SCRATCHED DURING INSTALLATION.

END OF SECTION