SECTION 262613-FUSES

PART 1 GENERAL

1.1 SUMMARY

A. Section includes fuses, fuse holders and spare fuse cabinet.

1.2 REFERENCES AND QUALITY ASSURANCE

A. NEMA FU 1 (National Electrical Manufacturers Association) - Low Voltage Cartridge Fuses.

B. NFPA 70 – National Electrical Code.

C. Underwriter's Laboratory.

D. Cartridge Fuses: NEMA FU 1, ANSI/IEEE FU 1.

1.3 DESIGN REQUIREMENTS

A. Select fuses to provide appropriate levels of short circuit and overcurrent protection for the following components: wire, cable, bus structures, and other equipment. Design system to maintain component damage within acceptable levels during faults.

B. Select fuses to coordinate with time current characteristics of other overcurrent protective elements, including other fuses, circuit breakers, and protective relays. Design system to maintain operation of device closest to fault operates.

1.4 FUSE PERFORMANCE REQUIREMENTS

A. Main Service Switches Larger than 600 amperes: Class L [(time delay).

B. Main Service Switches: Class RK1 (time delay).

C. Power Load Feeder Switches Larger than 600 amperes: Class L [(time delay).

D. Power Load Feeder Switches: Class RK1 [(time delay).

E. Motor Load Feeder Switches: Class RK1 (time delay).

F. Other Feeder Switches Larger than 600 amperes: Class L time delay.

G. Other Feeder Switches: Class RK1 (time delay).

H. General Purpose Branch Circuits: Class RK1 (time delay).

I. Motor Branch Circuits: Class RK5 (time delay).

1.5 SUBMITTALS

A. Section 013300 - Submittal Procedures: Submittal procedures.

B. Product Data: Submit data sheets showing electrical characteristics, including time-current curves.

1.6 CLOSEOUT SUBMITTALS

A. Section 017700 - Closeout procedures.

B. Project Record Documents: Record actual sizes, ratings, and locations of fuses.

1.7 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.8 MAINTENANCE MATERIALS

A. Refer to Division 1 requirements.

B. Furnish two fuse pullers.

1.9 EXTRA MATERIALS

A. Refer to Division 1 requirements.

B. Furnish three spare fuses of each Class, size, and rating installed.

PART 2 PRODUCTS

2.1 FUSES

A. Manufacturers:
1. Gould – Shawmet.
2. Bussman.
3. Little Fuse.

B. Dimensions and Performance: NEMA FU 1, Class as specified or as indicated on Drawings.

C. Voltage: Rating suitable for circuit phase-to-phase voltage.

D. Low voltage fuses shall be Class R or Class L rejection type, time delay, high interrupting, current limiting, dual element.

E. Fuses rated 601 amp through 6000 amp to be NEMA Class “L” and U.L. approved for 200,000 amps RMS symmetrical interrupting capacity.

F. Fuses rated 0 through 600 amp to be NEMA Class “RK1” and U.L. approved for 200,000 amps RMS symmetrical interrupting capacity.

G. Fuses shall be nonrenewable cartridge type, noninterchangeable type.

H. Spare Fuse Cabinet: Wall-mounted 18 gage steel unit.

I. Three spare fuses for each type and size.

2.2 CLASS RK1 (TIME DELAY) FUSES

A. Manufacturers:
1. Gould Shawmet.
2. General Electric.
3. Bussman.
4. Little Fuse.

B. Dimensions and Performance: NEMA FU 1.

C. Voltage: Rating suitable for circuit phase-to-phase voltage.

D. Construction: Spring clip type.

2.3 CLASS L (TIME DELAY) FUSES

A. Manufacturers:
1. Gould Shawmet.
2. General Electric.
3. Bussman.
4. Little Fuse.

B. Dimensions and Performance: NEMA FU 1.

C. Voltage: Rating suitable for circuit phase-to-phase voltage.

D. Construction: Bolt mounted.

2.4 SPARE FUSE CABINET

A. Product Description: Wall-mounted sheet metal cabinet with shelves, suitably sized to store spare fuses and fuse pullers specified.

B. Doors: Hinged, with hasp for Owner's padlock.

C. Finish: Gray enamel.

PART 3 EXECUTION

3.1 INSTALLATION

D. Install fuse with label oriented so manufacturer, type, and size are easily read.

E. Install spare fuse cabinet.

END OF SECTION 262613