SECTION 262813

FUSES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Fuses.

B. Spare fuse cabinet.

1.2 RELATED SECTIONS

A. Division 09 - Painting: Painting of spare fuse cabinet.

B. Section 26 05 00 - Basic Electrical Requirements.

C. Section 26 24 13 - Distribution Switchboards.

D. Section 26 24 16 - Panelboards.

E. Section 26 28 16 - Enclosed Switches.

1.3 REFERENCES

A. NFPA 70 - National Electric Code.

B. NEMA FU 1 - Low Voltage Cartridge Fuses.

1.4 SUBMITTALS

A. Submit under the provisions of Division 01.

B. Product Data: Provide data sheets showing electrical characteristics including time-current curves, AIC rating and UL classification. Also, show manufacturer's name, catalog number and voltage.

C. Submit a dimension drawing showing the location of the spare fuse cabinet.

1.5 PROJECT RECORD DOCUMENTS

A. Submit under the provisions of Division 01.

B. Record actual fuse sizes.

1.6 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing the products specified in this section with a minimum of three (3) years' documented experience. Use only fuses made by the one manufacturer.

1.7 REGULATORY REQUIREMENTS

A. Conform to the requirements of NFPA 70.

B. Furnish products listed and classified by UL as suitable for purpose specified and indicated.

1.8 MAINTENANCE MATERIALS

A. Provide two fuse pullers.

1.9 EXTRA MATERIALS

A. Furnish under the provisions of Division 01.

B. Provide three of each size and type fuse installed in the spare fuse cabinet prior to final inspection.

PART 2 PRODUCTS

2.1 FUSE REQUIREMENTS

A. Dimensions and Performance: NEMA FU 1, Class as specified or indicated.

B. Voltage: Provide fuses with voltage rating suitable for circuit phase-to-phase voltage.

C. Main Service Switches Larger than 600 amperes: Class L, fast acting.

D. Main Service Switches: Class RK1 (dual element/time delay).

E. Power Load Feeder Switches Larger than 600 amperes: Class L (fast acting).

F. Power Load Feeder Switches: Class RK1 (dual element/time delay). RK5 (time delay).

G. Motor Load Feeder Switches: Class (dual element/time delay).

H. Lighting Load Feeder Switches Larger than 600 amperes: Class L fast acting.

I. Lighting Load Feeder Switches: Class RK1 (dual element/time delay).

J. Other Feeder Switches Larger than 600 amperes: Class L fast acting.

K. Other Feeder Switches: Class RK1 (dual element/time delay).

L. Power Branch Circuits: Class RK1 (dual element/time delay).

M. Motor Branch Circuits: Class RK5 (dual element/time delay).

2.2 CLASS RK1 (DUAL ELEMENT/TIME DELAY) FUSES

A. Manufacturers:
1. Bussman Model LPN/LPS.
2. Gould-Shawmut Model A2D/A6D.
3. CEFCO Model LON/LOS.

2.3 CLASS RK1 (FAST ACTING) FUSES

A. Manufacturers:
1. Bussman Model KTN/KTS.
2. Gould-Shawmut Model A2K/A6K.
3. CEFCO Model CTN/CTS.

2.4 CLASS RK5 (DUAL ELEMENT/TIME DELAY) FUSES

A. Manufacturers:
1. Bussman Model FRN/FRS.
2. Gould-Shawmut Model TR/TRS.
3. CEFCO Model CRN/CRS.

2.5 CLASS J (DUAL ELEMENT/TIME DELAY) FUSES

A. Manufacturers:
1. Bussman Model LPJ.
2. Gould-Shawmut Model AJT.

2.6 CLASS J (FAST ACTING) FUSES

A. Manufacturers:
1. Bussman Model JKS.
2. Gould-Shawmut Model A4J.
3. CEFCO Model CJS.

2.7 CLASS T FUSES

A. Manufacturers:
1. Bussman Model JJN/JJS.
2. Gould-Shawmut Model A3T.

2.8 CLASS L (FAST-ACTING) FUSES

A. Manufacturers:
1. Bussman Model KTU.
2. Gould-Shawmut Model A4BY.
3. CEFCO Model CLU.

2.9 CLASS L (TIME DELAY) FUSES

A. Manufacturers:
1. Bussman Model KRP/KLU.
2. Gould-Shawmut Model A4BQ/A4BT/A4BY.
3. CEFCO Model CLL.

2.10 SPARE FUSE CABINET

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

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

C. Finish: Match switchgear.

D. Manufacturer:
1. Bussman Catalog No. SFC.
2. Gould Shawmut Catalog No. GSFC.

PART 3 EXECUTION

3.1 INSTALLATION

A. Install fuses in accordance with the manufacturer's instructions and with all applicable codes.

B. Install fuse with label oriented such that manufacturer, type, and size are easily read.

C. Install spare fuse cabinet where indicated on the drawings.

D. Fuses with bolt mount terminals shall be bolted in place using brass bolts/nuts. Place a bronze or brass spring type washer (similar to Belleville cupped washer) between the bolt head/nut and the fuse blade. Tighten using torque as recommended by ASTM Standard for the type of bolt and diameter. Affix a label inside the fuse compartment door showing recommended torque - do not cover instructions or label on door.

E. Do not ship switches in electrical equipment with fuses already installed. Do not deliver fuses to the job site until the equipment is ready to be energized.

END OF SECTION