### PRACTICAL FUSE SPECIFICATION



### LOW VOLTAGE (600 VOLTS OR LESS) FUSE SPECIFICATION:

#### General:

The contractor shall install UL "listed" fuses of the correct UL Class, type and amp ratings in switches or place in spare fuses cabinet(s) as indicated on the plans and/or as specified below. All installed and spare fuses shall be in their original new, clean, dry and unused condition when installed and when placed in a spare fuses cabinet(s). The contractor shall thoroughly clean, mechanically check and electrically test, as required, all equipment and components before installing fuses and energizing.

## UL Class L bolt-on fuses rated 601 to 6000 amps:

To mount UL Class L fuse types and amps ratings as shown on the plans, use stainless steel bolts of correct number, diameter and length, stainless steel spring washers on each side of the bolt and stainless steel nuts. The nuts shall be tightened to the torque recommended by ASTM Standards for the bolt size used. The bolts shall have the largest diameter that will fit the bolt holes and length to allow full nut thread engagement. Bolts shall be installed in each fuse mounting hole or slot. Class L fuses shall have silver links. The quality benchmark for Class L fuses shall be Edison Fusegear Cat. No. LCL time-delay type or Cat. No. LCU fast acting type as shown on the plans. Edison Class L fuses are quality engineered and constructed, using Statistical Process Control, for foolproof filler retention without "O" rings. Edison quality engineered and constructed fuses do not expel gases.

### **UL Class R fuses rated up to 600 amps:**

UL Class RK1 dual element, time-delay fuse type and ratings shall be installed in Class R switches as shown on the plans. Class RK1 dual element fuses shall not use springs in the overload elements in ratings 70 amps and larger; they shall have non-ferrous end caps for energy efficiency. The quality benchmark for Class RK1 dual element fuses shall be Edison Fusegear Cat. No. LENRK(AMP)(250V) or LESRK(AMP) (600V).

# UL Class J fuses rated up to 600 amps and 300V Class T fuses rated 35 to 800 amps:

Protection of circuit breakers requires the use of Class J or Class T fuses as shown on the plans. These fuse Classes are not interchangeable with fuses having less current limiting ability. The quality benchmark for these fuses shall be Edison Fusegear Cat. No. JFL (Class J fast acting type) or Cat. No. TJN (300V Class T fast acting type).

### Fuse classes, types and ratings:

All fuses have been specified as to UL Class, type, volts and amp rating on the plans when the project was engineered. No fuse types or ratings will be changed in the field without approval from the project design engineer. Generally, the fuse types commonly specified are Class L time-delay type, Class RK1 dual element type and Class J fast acting type. Class L fast acting, Class RK1 fast acting and 300V Class T fast acting fuses may be specified for special conditions.

### Interchangeability of specified fuses:

The fuse brand specified is the quality benchmark and is preferred. All installed and spare fuses shall be both electrically and physically interchangeable with the same specific Classes, types and ratings of any other brand of fuses that are UL "listed" per the appropriate UL Standard for Safety without creating a safety hazard for the public and/or building occupants. Otherwise, a fuse-protected power distribution system design can not meet the requirements of good engineering practice, as applied during the design of this project, and can not meet the requirements of the National Electrical Code during the life of the installation. The contractor shall place an instruction label inside the door of each switch (do not cover other instructions) identifying the UL Class, Type, Volts and Amp rating of originally installed fuses. Labels are available from Edison Fusegear.

### Spare fuses:

A metal spare fuse cabinet(s) shall be provided as required, surface mounted, with lockable handle. 10% of each type and rating of installed fuses shall be duplicated as spare fuses, or a minimum of 3 fuses of each type and rating, and placed in a Edison Cat. No. ESFC spare fuse cabinet(s) and locked.

### **Engineering plans and specifications:**

A copy of the pertinent sheets of the plans and the pages of specifications pertaining specifically to installed fuses information shall be placed inside one of the Edison spare fuse cabinets for maintenance reference purposes.