

1.0 **GENERAL**

1.1 **Coordination Requirements**

- .1 UBC Energy & Water Services
- .2 UBC Facilities Electrical (Vancouver)
- .3 UBC Facilities Management (Okanagan)

1.2 **Description**

- .1 UBC requirements for Protective Device Coordination and Arc-Flash Analysis for AC or DC electrical equipment.

2.0 **MATERIAL AND DESIGN REQUIREMENTS**

2.1 **General**

- .1 The engaged consultant shall review and validate the short circuit analysis and protective device coordination studies as prepared by the equipment manufacturer for all electrical protective devices to verify each device can safely withstand and interrupt the available fault currents.
- .2 (Vancouver) Utility information shall be provided, upon request, to the consultant or equipment manufacturer by UBC Energy & Water Services
- .3 Coordination information shall be shown on a graphical chart in log-log format for all applicable low voltage devices and for all devices used for Medium Voltage protection. All device settings shall be indicated either on the chart or accompanying the chart.
- .4 The maximum allowable Arc Flash Hazard category for any part within Medium Voltage unit substations shall not exceed level 2 (8 cal/cm²) as per Section 26 11 13 Primary Unit Substations, 2.1.9 and 2.13.
- .5 The engaged consultant shall review and validate the Arc Flash hazard analysis for all applicable components of the project's electrical distribution system per CSA Standard Z462.
- .6 The engaged consultant shall ensure that every effort is given to minimize the Arc Flash Hazard category while maintaining selective device coordination. Reduce distribution transformer sizes or incorporate circuit breakers with LSI capabilities to achieve a maximum of 8 cal./cm sq. at all switches, circuit breakers and MCCs.
- .7 The Arc Flash hazard analysis shall clearly indicate the Incident Energy, Arc Flash protection boundary and Hazard Category for each applicable device.
- .8 All documentation shall be in colour and provided in soft copy PDF format. Scanned copies shall not be permitted.
- .9 All applicable equipment shall have Arc Flash Hazard labels affixed as required in Section 26 10 00 Secondary Power Distribution, 3.0.
- .10 [A copy of the model shall be provided to UBC Facilities Electrical after the final report has been issued. The files provided shall be in the default ETAP or SKM format.](#)

END OF SECTION