

## ***Are Your Electrical Specifications Ready for the Washington Cities Electrical Code?***

The Washington Cities listed below have adopted a set of Electrical Codes to complement the WAC regulations. The Washington Cities Electrical Code will be used to supplement the National Electrical Code (NEC). The date that each city will be adopting the code will vary.

<b>Bellevue</b>	<b>Redmond</b>	<b>Kirkland</b>	<b>Renton</b>	<b>Mercer Island</b>	<b>Marysville</b>
<b>Olympia</b>	<b>SeaTac</b>	<b>Tukwila</b>	<b>Lacey</b>	<b>Vancouver</b>	<b>Seattle</b>
<b>Burien</b>	<b>Des Moines</b>	<b>Longview</b>	<b>Bellingham</b>	<b>Normandy Park</b>	<b>Bellevue</b>
<b>Lynnwood</b>	<b>King County</b>				

Section 110.16 of the new Washington Cities Electrical Code (WACEC) states that arc flash labels shall be attached to electrical equipment. The labels must contain the Hazard Risk Category (HRC) and the Arc Flash energy level (cals/cm<sup>2</sup>). This requirement goes above and beyond the Section 110.16 of the NEC. The NEC allows generic Arc Flash labels warning only that there is a hazard. The Washington Cities Electrical Code (WACEC) will not allow generic Arc Flash labels.

Arc Flash energies are based upon the available fault current at each piece of equipment and the time that it takes for the upstream device to operate (trip or blow). More information about arc flash hazard studies and arc flash labels can be found at

<http://www.powerstudies.com/articles>



### Arc Flash and Shock Hazard

0 Ft 5 In Flash Hazard Boundary  
0.1 cal/cm<sup>2</sup> Flash Hazard at 1 Ft 6 In  
Arc Rated Clothing Required (See NFPA 70E-2015 H.3(b) for additional PPE)

208 VAC Shock Hazard when cover is removed  
00 Glove Class  
3 Ft 6 In Limited Approach (Fixed Circuit)  
Avoid Contact Restricted Approach

05/12/2015 IEEE 1584-2002/2004a/2011b & NFPA 70E-2015  
Equipment ID (Name): PNL-A (PANEL A)  
Protective Device: FDR TO PNL A

Scenario 1 - MAXIMUM FAULT CURRENT  
Study Performed By PowerStudies, Inc..(253) 639-8535

### SAMPLE ARC FLASH LABEL

An arc flash study can be performed only after:

- 1) Utility information is known
  - a) Transformer Size and Impedance
  - b) Primary Protection (Mfg, Type, & Size)
  - c) Minimum and Maximum available Primary Fault Current
- 2) The data (Mfg, Type, & Size) for a protective device to be installed, or that is already installed, has been collected.
- 3) The Protective Device Coordination Study (breaker and relay settings) has been completed.

Proper specifications are extremely important to the success of any project. Detailed Power System Study (Short Circuit, Protective Device Coordination, & Arc Flash) specifications will help to ensure the studies are performed accurately. These studies must be performed before the equipment is to be energized. These specifications can be found on our web site at <http://www.powerstudies.com/study-specs>