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Arc Flash Truths

1. Arc Flash compliance is slowly becoming legislated in Canada, and has been in the US market for about 3 years.

2. 480 and 600V systems are the main focus as arcs are not generally considered self propagating below 250V.

3. Severity of ArcFlash is governed by the magnitude of the fault and by how long it is allowed to flow. Therefore, devices which clear faster, better limit arc flash exposure.

4. HRC fuses are the cheapest, most effective way of limiting arc flash hazards associated with large faults. (>18-20X fuse rating).

5. Fuses, due to their current limiting nature, reduce the available downstream fault current for other devices. Note: the use of upstream HRC fuses does not improve the performance of these devices – they merely reduce the fault levels that these devices have to contend with. A slow breaker is still a slow breaker.

6. At lower overcurents, below a fuse's current limiting threshold, fuses do not have as much of an advantage over breakers. It is simply a question of time taken to operate

7. The poor man's path to ArcFlash compliance;

    a. Identify protective devices at all locations that will be worked on live.

    b. Perform a short circuit analysis of the system using free fault calculation software to determine the fault level at each location.

    c. Upgrade to current limiting fuses wherever possible.

    d. Identify those locations where HRC fuses are not installed and focus on these areas first – as they will present the greatest hazards.

    e. Eliminate any old inventory that is made obsolete by the above measures.

    f. The above will not get you 'formal' certification, but they embody the intent behind it, and it is all work that will need to be done anyway – so it is not wasted.

    g. A fuse audit from our company will accomplish 'c to f' above