

NOTES FROM SARI MEETING

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“Understanding the Electrical Arc Flash Hazard” was presented by Richard R. Gojdics, National Market Director, Westex, Inc., Chicago, IL.

The latest version of NFPA 70E (2009), “Standard for Electrical Safety in the Workplace”, drives the need to protect qualified employees who work on live circuits with flame-resistant clothing.

Most major injuries are to qualified people, cause by ignition of clothing. Synthetic clothing must not be worn when performing live electrical work, due to the danger of it igniting and causing serious burn injury. Cotton clothing could easily ignite between 400 and 800 degrees, and is not adequate protection within the flash boundary for work identified in NFPA 70E, other than Hazard Risk Category (HRC) 1. Flame-resistant clothing is required by the Standard for all tasks that fall into HRC 1 to 4.

Flame-resistant clothing is available in a variety of arc ratings, to protect against arc energy potentials, which are expressed in calories per centimeter squared (cal/cm^2).

Typical hazard categories and protection required are:

<u>Hazard Risk Category</u>	<u>Protection</u>
0	N/A
1	4 cal/cm^2
2	8 cal/cm^2
3	25 cal/cm^2
4	40 cal/cm^2

Flame resistant clothing can be purchased, or, rented from a reputable source that provides pickup and delivery of laundered items.

Arc flash injuries can be put into perspective by considering that a typical hospital stay is 1.5 days per % of body surface burned, with an average stay of 19 days at a cost of \$18,000 per day.