

STRAIGHT FACTS ON CSA Z462 WORKPLACE ELECTRICAL SAFETY STANDARD

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As many Occupational Health and Safety Professionals are aware, in the fall of 2006 a Technical Committee was formed to develop Canada's first Workplace Electrical Safety Standard known as CSA Z462. Many have referred it to the adoption of NFPA 70E - The Standard for Electrical Safety in the Workplace. Canada currently does not have a National Standard for workplace electrical safety. Throughout Canada, many workers have been exposed to, and have suffered serious and even fatal injury as a result of, electrical contact and arc flash.

Before proceeding with the remainder of this article, it is vital that some very important information be clarified with respect to CSA standards.

As with any CSA Standard, CSA Z462 is being developed by a voluntary technical committee that has been selected by CSA using a balanced matrix process to ensure that stakehold-

ers (industry, labour, government) from all provinces in Canada are allowed an opportunity to be represented.

The first edition of CSA Z462 will initially be recognized as a voluntary best practice standard for use anywhere in Canada. In the future, as Z462

gains acceptance, each Province and the Federal Government may choose to reference it in regulations, and thereby make it mandatory. This is a similar process followed by regulators in referencing the Canadian Electrical Code (CEC) Part 1, 20th Edition, C22.1-06. Therefore it must be understood that CSA Z462, like many CSA standards, will be a voluntary standard. Similar to NFPA 70E, it will be recognized as a standard, best practice guide to be used in the Canadian workplace.

The drive to create a Canadian version of NFPA 70E came from three parallel fronts.

In 2004, during the process of creating CSA Z460, The Control of Hazardous Energy Lockout and Other Methods, the technical committee for Z460 brought forward the need for a national Canadian standard that would address protection of workers from electric shock and arc flash while performing the tasks of testing and troubleshooting on exposed energized electrical equipment. This need also became apparent when the CSA Z460 training program began to be offered across Canada in 2005, where many electrical workers were concerned about a Standard which would



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address testing and troubleshooting on energized circuits and equipment.

About that same time, a proposal was made to revise the next edition of the Canadian Electrical Code (CEC) to create a widely read Canadian reference to NFPA 70E. In June of 2005, CEC Rule 2-306 (Electric Shock and Arc Flash Warning Labels) was unanimously adopted by CEC. It is important to note that the reference to NFPA 70E is in the appendix of B notes to Rule 2-306, which is the non-mandatory notes harmonized with the U.S. National Electrical Code (NEC) Article 110.16.

The third, and probably most significant front, was the ground swell of public and industry support for a Canadian electrical safe-work practices standard. All across Canada, and notably Alberta, there was keen interest in seeing a standard developed that addressed electrical safety from the Canadian perspective. In Alberta an Electric Arc Hazard Committee was created to address this issue. Additionally, various electrical industry members approached CSA with offers of financial support for such a project.

In the NFPA 70E Standard, the task of an "Arc Flash Hazard Analysis" is discussed. Although it is recommended in the determination of a "Hazard Risk Category" and proper selection of "Personal Protective Equipment" and FR (Flame Resistant) clothing, it is not mandatory and not being enforced by Provincial or Federal Regulators. Nor is it the only protection method discussed in NFPA 70E in the final determination of equipment to protect a worker from burn injuries sustained from an electric arc flash event. The single most effective method to protect against arc flash injuries is to work in electrical equipment in the de-energized state, a practice recommended in NFPA 70E and enforced by current Occupational Health and Safety legislation.

Finally, CSA Z462 will be developed in parallel with the 2009 edition of NFPA 70E. Based on an agreement with NFPA 70E, Z462 will be harmonized with NFPA 70E as much as practicable for Canadian workplaces. Several general meetings of the technical committee will be held throughout 2007, and into 2008. The first edition of the CSA Z462 Standard will be completed in late 2008.

Watch for our upcoming training forums on Arc Flash Safety this fall coming to a location near you across Canada.



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