

INDUSTRY UPDATE

Arc Flash PPE

The past 12-24 months has seen a huge increase in the awareness of Arc Flash PPE in Australia. The Australian market has matured quickly, and Arc Flash is somewhat of a hot topic at the moment. Industry leaders Extreme Safety share their knowledge on the subject...

When we started importing our first Arc Flash protection garments almost 10 years ago, there was very little knowledge on the subject out there, and even less demand for the product. Today we are proud to see a huge number of highly knowledgeable engineers and safety officers working in the Arc Flash area. This is encouraging to see, and Australia is catching up to the rest of the world rapidly, with the potential of overtaking them thanks to the work of some very talented and dedicated people.

Standards

The battle on Arc Flash PPE standards continues to rage. With no Australian Standard to adhere to, and no significant movement towards the development of one, the two major world standards (European and American) are the most common being adopted here in Australia. These standards are used worldwide, and very few countries have seen the need to develop their own

standards. One standard also gaining strength here is the Canadian Standard. This is a metric version of NFPA 70E, and is well worth a look. CSA Z-462-08.

Trends

There are now many products available for Arc Flash protection, but they all follow the general early trend seen in Australia. The most common form of Arc Flash PPE we see being implemented today are Cat 4 Arc Flash suits to be available to operators for tasks such as switching and racking in breakers, as this is when the risk exposure is the highest. Most Arc Flash studies that we have seen conducted at sites, come up with this same recommended workplace procedure as their result. Work can also be done to the switchboard to reduce the Arc Flash rating, this requiring lower level PPE.

The implementation of uniforms manufactured from Flame Retardant fabric for all electrical workers seems to be the next logical step here in Australia, with a move away from cotton-drill (standard cotton). The Arc Flash hazard studies mentioned above usually also recommend this option, but due to the higher cost of implementing this step, there is usually some lag in adoption rates. There are many very good fabrics available, and as we represent almost all of them, we hold no bias and give proper accurate advice. Cat 2 Arc Rated uniforms are the order of the day at this point in time.

Hygiene is an issue of concern for the Cat 3 or 4 suits previously mentioned. Because

of the cost factor, many sites choose keep these PPE garments in the switchrooms or other locations where they are needed, for all staff to wear. This raises Hygiene issues in both the faceshield region (from breathing) and also the head wear. Spending the extra funds and having these Cat 3 or 4 suits as personal issue items does not automatically solve all safety issues either, as staff need to remember to bring their gear. What happens when switching needs to be done urgently, and they have forgotten to bring their Switching suit? This creates a risk of the 'I've done it 1000 times, I'll be OK' mentality.

Workplace Culture

As mentioned at the start of this review, engineers and health & safety professionals now know that this equipment is needed. The opposition however comes from those at the operations level who are asked to wear the gear. The perception is that the clothing is hot and uncomfortable, and since the FR uniform saga that occurred in a large electricity supplier, there is also a fear factor of health effects from FR clothing. In our experience, and from listening to our customers who have dealt with these issues, there seems to be two main tactics to overcome this. Option one is to employ scare tactics. One of our customers decided to show staff arc flash testing videos, and even real video from a burns ward. The workers left the session asking how quickly the arc flash PPE will arrive, and when they can start wearing it. They were very keen to get into proper protection. Option two is supplying the Arc Flash PPE to staff, with a warning on what will happen if they are caught not wearing it. This can be anything from a '3 strikes and you're out' policy, to instant dismissal. Some would call this very harsh, but has been known to work effectively in getting staff to accept the equipment. These tactics are not our opinion, simply ones that we have seen employed effectively by our customers.

Summary

Australia has moved very quickly to start to catch up with the rest of the world in terms of Arc Flash awareness and protection. At Extreme Safety we are proud to have created some of this awareness; however we feel there is still some way to go to be on level terms with the European and American continents. The process is not complete and we need to continue to learn and improve.

-Andre Borell





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