



Insight & Expertise

A Guide to Arc Flash Mitigation

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Why Arc Flash Mitigation?

Arc flash is the rapid release of electrical energy through the air between two conductors. The resulting short circuit creates an explosion and releases a plasma fireball that can reach significant temperatures causing catastrophic damage and potentially fatal injuries. These are the undesirable consequences of non-mitigated systems.

Our statistics collected over a number of years suggest that around 25% of LV distribution systems were placed in category's that potentially, can present a significant hazard to personnel and equipment. Our mitigation programmes aim to reduce this proportion to a more tolerable amount, ideally to 0%. However, in practice it is not always possible to achieve this and hence alternate methods in minimising risk to personnel have to be used.



What is Arc Flash Mitigation?

Once your Arc Flash Hazard analysis has been completed, the report will inform you of the hazards associated with your electrical equipment and systems and they will have been categorised depending on their incident energy levels. As mentioned above, statistically, a quarter of the systems we have assessed are categorised above a level where significant harm or damage will occur following an Arc Flash event.

Our mitigation process provides our clients with option to reduce arc flash hazards through the use of application specific stages. We have consistently maintained technical leadership in this field with our methods constantly evolving as the body of knowledge surrounding arc hazards increases.

The aim of Arc Flash mitigation is to reduce the hazards of Arc Flash through cost effective Electrical Engineering techniques. These range from procedural, practical (such as equipment settings) and/or redesign. We provide you with estimated costs to implement these measures and once completed, a rerun of the Arc Flash hazard analysis is undertaken and a final residual risk assessment is produced.



What should I be doing?

The hazards arising from your Arc Flash hazard analysis should be assessed and can be either addressed through an individual mitigation plan or alternatively, added to your overall site risk register and prioritised accordingly.

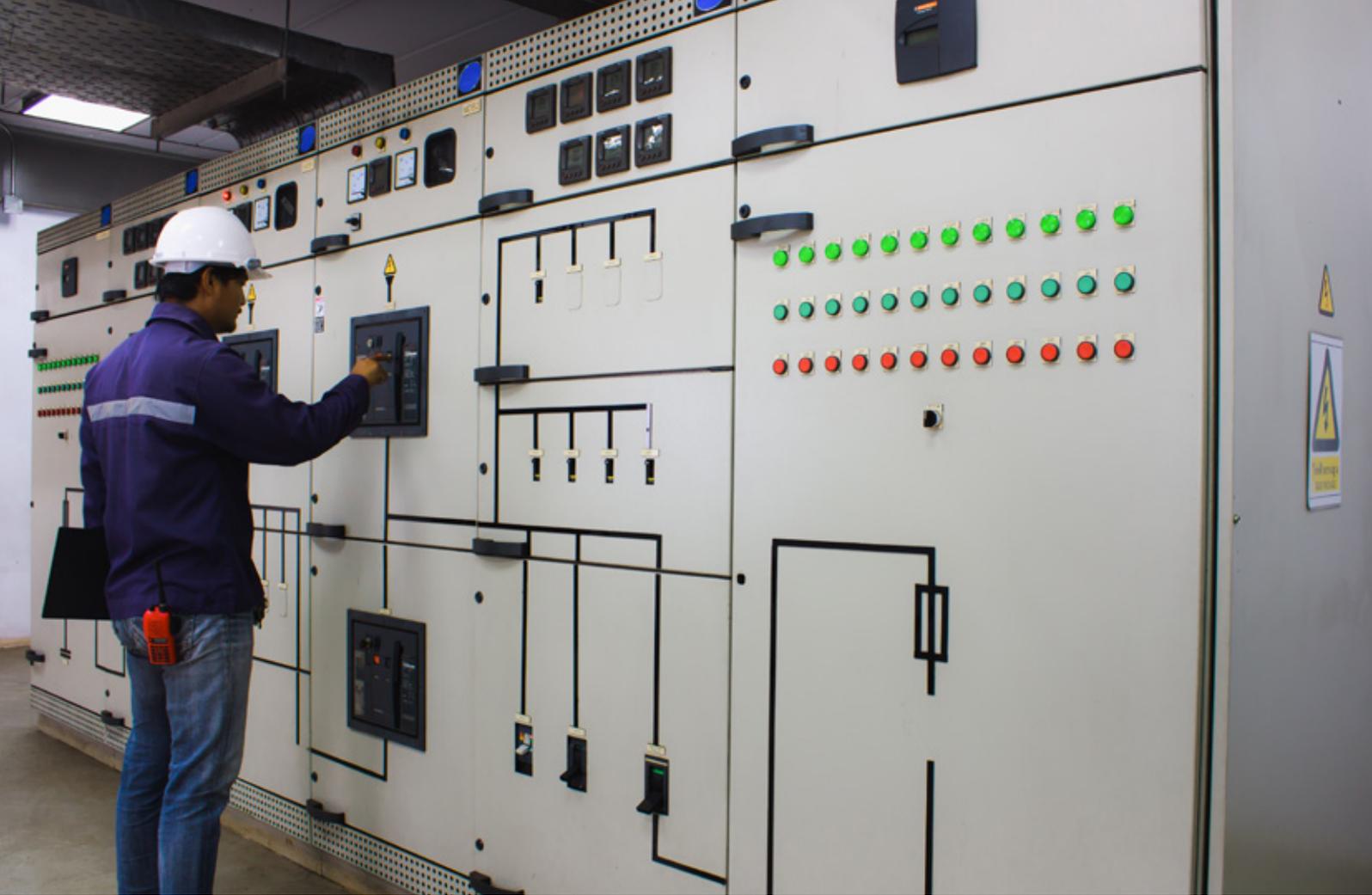
Either way, you will need to take action to ensure that the hazards identified have plans in place to remove or reduce them. Talking to us will give you the opportunity to explore various approaches in how to do this.

Can I do this myself?

As part of an overall site risk reduction exercise, Arc Flash mitigation absorbs time and resources and with sufficient resource and engineering knowledge, it is manageable.

You will need to design and implement appropriate mitigation measures and then manage any residual risk. Remember that PPE is the last resort and sufficient rigour must be applied to your mitigation plan in order to ensure that all practical measures have been covered and where possible, implemented.





Where Covol can help

We have been carrying out these activities for various clients and have the experience, resource and skill set to ensure that suitable, practical and cost effective solutions are provided to you.

We can support you through the initial concepts and ideas through to providing design, determining equipment settings and suggesting alternative practical measures. Additionally, we can offer training in arc flash to provide your staff with an awareness of what arc flash is and the mitigation measures available to you plus, labelling and PPE requirements that are also available.

If our help in supporting you with Arc Flash hazard mitigation is something that you would like to know a bit more about then please contact us.



Ready to engineer change and progress in your business?

Get in touch to speak to our experts

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