

Arc Flash is deadly serious.

Could it be management's fault?

What do you think?

Flash-Over events, on enclosed equipment cause faults & unexpected Electrical system downtime. With humans present, this is called **Arc Flash & it kills.**



What causes a **Flash-Over**? is it human error?

1. Wear & Tear on contacts/springs/connections.
2. Humidity.
3. Dirt or Contamination.
4. Insulation breakdown or deterioration.
5. Loose Connection.
6. Excessive Heat.
7. Humans can enter equipment that is ready to **Flash-Over**. Something as simple as opening or closing a Breaker, pulling a Bus-duct plug, or moving a cable.
8. Lack of Preventative Maintenance. Example: Dirt/Dust/Contamination on Insulators provides an arcing path, which affects Insulation test results.

These **Flash-Over** events are mostly preventable, and it's not carelessness that causes them!

To be clear, I'm not suggesting that management causes **Flash-Over** or **Arc Flash** events, nor am I suggesting reduction in personnel training.

Lets look at some cases:

1. Contamination or one of the other list items, is present & the Electrician moves the wires, which results in an immediate 1ph ground fault, & then becomes a 3 phase fault, and **ARC FLASH!**
2. An Electrician is working on diagnosing and getting the electrical system back up, while management is standing behind him, watching, and asking, "how much longer?" Electricians are human and can get nervous, which is not helpful.
3. An unattended **Flash-Over** causes a dead short, which could immediately trip a circuit breaker, but the fire is not extinguished until the Fire Department puts it out.
4. A metering transformer is hit by lightning, just outside the plant, causing the top to blow off. The fire burned for over an hour. There is no downtime or equipment damage inside the plant.

Are these events caused by Electrician error? 3 and 4 had VSGR installed, which minimized the danger, damage, prevented **Arc Flash** and probably saved lives.

The costs of **Flash-Over & Arc Flash** events are staggering. Can you afford them?

Install **VSGR** on every transformer to greatly reduce the risks, and SAVE LIVES!

Email or call me for a demonstration.

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