

“Performed as Designed”

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When it comes to arc flash incidents, we typically hear about the events that end tragically. But, it's important to shed light on the incidents that end positively as a result of workers wearing the proper PPE. Opposite is an incident report from The Hilgeman Group that is a great example of how Westex UltraSoft® can help prevent serious injury.



With over 50 years of combined electrical safety experience, The Hilgeman Group, Inc. has emerged as one of the leaders in electrical arc flash safety training and consulting in North America.

With a reputation for providing world-class, eye-opening and common sense arc flash training, our instructors will forever change the way your employees approach electrical tasks.

Arc Flash Incident – Summary for the Management Team and Corporate Legal Department

Location: █████, WI
Company: █████, Inc
Department: Assembly
Unit: Clamper #612

On August 6th, 2013 at approximately 3:30 PM, Mr. █████ (1st shift maintenance technician) was called to the Assembly Department due to a reoccurring problem with Clamper #612. The machine operator complained that the unit would randomly stop its normal cycle, appear to shut down, then re-energize and move to the neutral position. This issue occurred twice during 1st shift on August 6th and was reported to maintenance by the Assembly Department supervisor.

Mr. █████ proceeded to open the unit's control panel (480V 60A) to perform troubleshooting. After opening the control panel, as he was measuring line-side voltage, an arc flash occurred. The arc flash resulted in a relatively large fireball, a cloud of black smoke and an explosion-like sound. Witnesses in that area, upon seeing and/or hearing the explosion, quickly exited the building. During my investigation, some of the witnesses informed me they thought it was a forklift propane tank that exploded.

I was immediately contacted via the PA system and arrived at the site of the incident within 2–3 minutes. The maintenance technician involved in the incident, Mr. █████, was taken to the First Aid room for initial evaluation and observation.

My investigation revealed that Mr. █████ was wearing the required PPE associated with that control panel. The panel was classified and labeled as Hazard Risk Category 2 by The Hilgeman Group during their assessment in February 2013. As a result of his usage of the proper PPE, absolutely no personal injury resulted (other than some minor redness on his chest and forearms).

Upon inspection of the PPE, the UltraSoft® garments performed as designed. The shirt was badly scorched, but did not ignite or break open at all. The pants had minor scorch marks near the waist area, but were otherwise unremarkable.

The gloves, face shield, etc., all performed as expected. All of the PPE worn at the time of this incident has been taken out of service and will be replaced. The Maintenance Manager intends to have the shirt mounted on the wall of the central maintenance shop as a reminder to his crew about the importance of wearing the proper PPE.

The actual root cause of the incident is still unknown. Our investigation continues. When completed, the full investigation report will be stored on the server in the Safety/2013/Investigations folder.

Matt █████, CSP

EHS Manager