

FHOSS

The purpose of Fhoss Powered Light Safety Wear is to save lives and reduce incidents in the workplace. Scotland TranServ has been working exclusively with Fhoss to develop the next generation of personal protective equipment for highway workers in South West Scotland. Because the Fhoss technology is self-illuminating, it does not rely on the secondary light source of street lighting or car headlights for visibility. Even in poor weather conditions the visibility of the innovative Fhoss product is 300 metres, or 1.5 miles in clear weather, while that of traditional glass bead technology is approximately 365m in good conditions.

Scotland TranServ worked with the company to develop the product from use in the railway industry, where speeds are often higher and braking distances longer. Traditional glass bead reflective clothing loses 70% of its visibility in the rain, and because of the Scottish (UK) climate and reduced daylight hours, our workers are very often working in dark, wet conditions. Glass bead reflective strips also lose visibility depending on the angle of the secondary light source, for example visibility is significantly reduced from lane one to three of a motorway or on the bend of a road. Fhoss products remain consistent as they use prismatic tape (Orafol) which has much higher reflectiveness and resilience. The product is water resistant, durable and meets all set standards (ISO20471).

The product requires a power source, but also has to be washable. Therefore Fhoss had to identify the correct cabling. Development of the battery alone required the work of a semi-retired nuclear scientist. The company worked with Dennis Cowdery to develop a pocket-sized rechargeable battery unit that would provide enough power for the needs of the luminescent lamp strips capable of lasting the duration of a work shift and were quick and easy to recharge, within 4 hours rather than overnight. As the power cell developed users requested in-vehicle charging and USB charging for ease of use. The battery life also had to be economical and has been developed for a lifecycle of 20,000 hours.

The powered light strip uses Electro-Luminescence, used by the US Airforce on jet instrumentation to help pilots avoid black spot. Such technology also helps our workers to avoid quick focus issues when operating heavy, dangerous machinery. The strips were developed to be visible from a wide range of angles and environments, far surpassing traditional reflective strips which lose up to 70% visibility in rain and fail to reflect unless direct secondary light is shone on them. One of the major challenges for Fhoss has been to develop a product that is of use in a number of environments and industries. Scotland TranServ is exclusively working with Fhoss Technology to develop the product for use in the highways sector.

Fhoss Powered Light Safety Wear is being used by around 3000 workers and has been used for approximately 13million hours so far. Not only will it save lives, but the illuminated ankle strips will also help to significantly reduce slips, trips and falls.

With a visibility of 300m even in poor conditions, the Fhoss product provides drivers with a safe distance to think, react and slow down ahead of any work area. The braking distance for a car travelling at 70mph in poor driving conditions can be around 200m, and that is why it is important to Scotland TranServ that the visibility of the product far exceeds this range.

Fhoss is already being recognized by some of the biggest companies in Britain, across a number of sectors from transport to construction and civil engineering. In working with Scotland TranServ on Scotland's trunk roads network we are proving the flexibility of the product, its continued universal application and robust manufacture. The Powered Light Safety Wear has already surpassed expectation through its trial phase.

The specially designed illuminated ankle strip, which provides a 3 feet circumference of light, helps to prevent slips, trips and falls. This type of accident is responsible for 20million lost working hours each year and costs the railway, highways and construction industries £1Billion annually.

Fhoss Technology is working with insurance underwriters Lloyds of London to promote the use of this advanced PPE product and ensure companies using the Powered Light Safety Wear pay reduced insurance premiums, just as with those using other superior security and safety products. A related benefit is the improved safety record of client companies, which will ultimately support bids for future contracts. Similarly investing in proven new technology also shows companies to be ahead of their game, helping them in the bid process.

Because workers feel more confident in the wearing of this superior PPE product, they are likely to be more productive. They are also more likely to take better care of the product because it is top of the range, and therefore replacement costs will be reduced, maximising investment.

This product will save lives. The health and safety of our workers is of paramount importance to Scotland TranServ and that is why we live by our Zero Harm philosophy and are rolling out use of this product.

