



***When light matters***

# Jan Henningsen

- Education: Textile Engineer from Denmark.
- Worked with PPE textiles my entire working life.
- Served 10 years in the ISO EN work group representing Denmark for both HI-VIS and FR.
- Worked with major workwear brands in all parts of the world on textile PPE solutions.
- Today part owner of Advanced Visibility and North American representative for Daletec / Sapphire “one of the world's largest vertically integrated textile groups” with offices in Norway and manufacturing in Pakistan.



## *Our Mission*

*Seeks to save lives and prevent injuries through developing advanced visible technologies*

# How it all began

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August 3, 2008 My business partner and product inventor suffered a life changing accident while working for his family's contracting company

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During a planned electrical shutdown he stepped back and fell onto rebar sticking out of a foundation wall that was under construction

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While out of work for nearly a year he became obsessed with workplace safety

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While studying he quickly learned that many fatal accidents are caused by moving vehicles and equipment results from lack of visibility

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In 2015 alone, 26,000 Canadian construction workers were injured on the job and 186 were fatal

**“Struck by” moving vehicle accounts for 13% of all fatalities in construction over the past 11 years in Canada**

**“Struck by” vehicle or equipment accidents account for 10% of workplace fatalities in US.**

# 01

With a background in chemistry Justin thought he could create a visibility solution for low or zero light environments

# 02

After months of brainstorming a solution using Phosphorescent pigments kept coming back to mind.

# 03

After studying the worlds Phosphorescent products it was quickly established that no such thing existed.

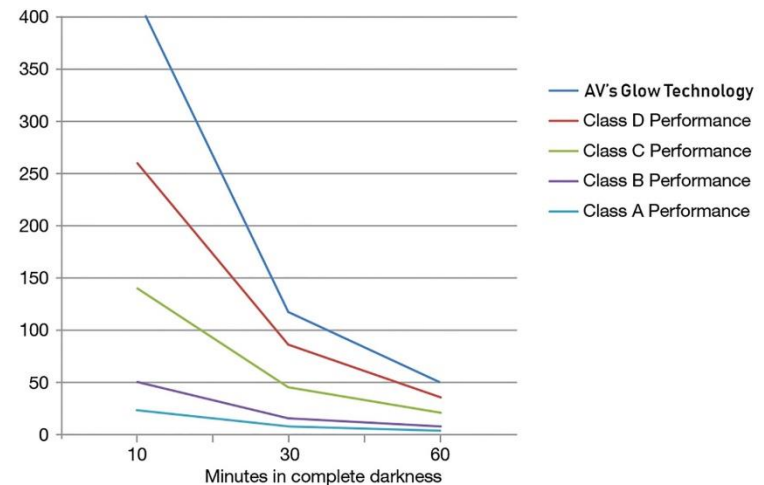
All lacked “glow” intensity to make a difference

Phosphorescent  
Technology stores  
light energy and  
releases it slowly  
giving an  
illuminating effect

## Advanced Visibility Afterglow performance

Tested according to ISO 17398:2004 " Safety Colours and Safety Signs Clause 7.11

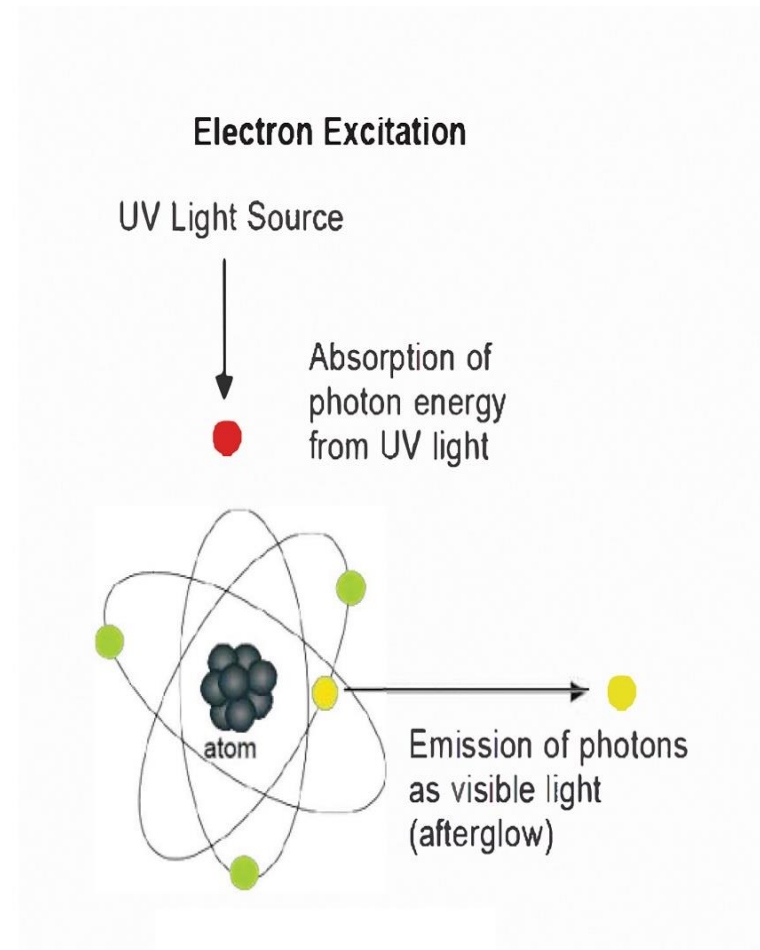
### Light measured in millicandellas ( $\text{mcd}/\text{m}^2$ )



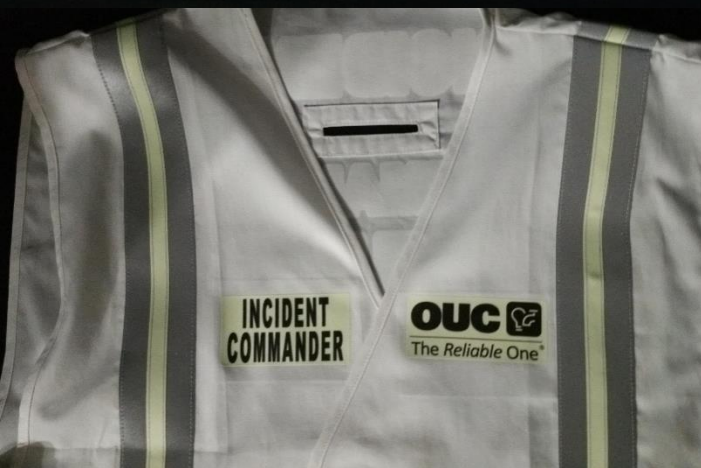
Testing done by accredited 3rd party

MINUTES IN DARKNESS	10	30	60
AV's Glow Technology	416	117	50
Class D performance	260	85	35
Class C performance	140	45	20
Class B performance	50	15	7
Class A performance	23	7	3

Fluorescent dye pigments used in hi-vis garments are nearly identical in its base chemistry. Difference being, energy absorbed from light is immediately released giving a bright appearance in daylight.

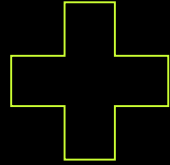






## PPE

- The next step in the innovation was to make it wearable. Today, the technology truly enhances the current safety garment. It can be applied by heat or sewn on, printed for logo's or part of a reflective tape solution for both domestic and industrial use, FR and non-FR.



“Statistics show workers working at night are 3X’s more likely to get struck by a vehicle than their daytime counterparts.” The level of danger only increases for utility workers as they are working during storms and power outages



# Stepping away from the work zone

DISTANCE  
199 M





## PSA Tape

- Can be used as markings tape
- Apply to tools
- Apply in combination with reflective marking materials



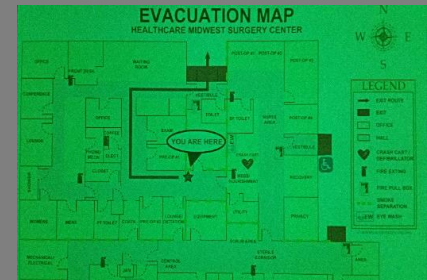
## Company Branding

- Heat Transfers
- Logos
- Hard Hat stickers



## Sheets or large rolls

- CAD cutting logos and signs
- Lettering trucks, equipment,
- Printing



50% of non-fatal injuries to truck drivers are caused by getting in and out of the cab. Eversource Energy is currently retro-fitting all their trucks





- Phosphorescent pigment manipulated to charge quickly and absorbing more energy creating a very intense glow
- The product has been formulated to stand up in harshest environments while continuing to deliver “visibility” to the wearer for the life time of the garment.
- Glow lasts up to 8 hours decaying over time
- Creates a new level of visibility when incorporated into certified garments.
- Helps potential “struck by” accident victims to be seen in time
- Provides added level of SECURITY or corporate identity.
- No batteries / lights required.
- Also works wet or under water.

## Glow Performance Summary

# Thank You



*What happens to your high vis when it becomes dark*