

To All Council Members:

Having recently attended both the Spokane Valley and Olympia State Building Code Council Meetings I would like to add a few items of note that were brought up in these meetings. I will say up front that I am an industry representative. In all products that I do represent there is an associated cost, however, the products that are brought to market are meant to provide a safer environment that meet a variety of needs. It was my understanding that we had until 5 o' clock today to submit any other testimony.

My intentions are to simply educate so that a determining decision can be made with all information whether for or against the implementation of photo-luminescent products on stairs.

- 1) Cost: I understand that cost is a true reality. There are now a wide variety of options for customers to choose from simple tape to hard line items. Each type offers variable quality, warranties, and installation variables. Cost have already come down considerably and I would predict that as these products continue to evolve and more competition enters the market place cost will continue to decrease. I have seen this in other products I represent.
- 2) Photo-Luminescent strips structure. I know the focus has been on the actual photo-luminescent portion in discussion. It was brought up today about being a trip hazard. To this point all material that I have been associated with also provides a non-slip material in conjunction with the photo-luminescent product. This non slip material is already used in the market place today in different forms as well. The photo-luminescent product added with this only enhances its features, therefore, providing a dual protection of non-slip and photo-luminescent.
- 3) Trip Hazards: It was brought up today as well about complaints about retro-fit material being a trip hazard. I oversee 7 states and Western Canada and have yet to receive a complaint on this actually happening. Typically, being a local representative I would receive phone calls if issues come up. Having dealt with ADA (Americans with Disability Act) my understanding is that a trip hazard is considered at a ¼ inch or more to be a trip hazard. If the material that we provide is installed correctly none would be considered a trip hazard under the ADA definition. I would also like to note that in order to be more economical I usually recommend that a simple non slip strip with photo-luminescent be applied. Utilizing this is usually a happy medium to the customer since they still receive the benefits of a higher quality product at a lesser cost. I recently utilized this product on the Taco Bell Arena on the Boise State University Campus. Photo-luminescent products are not only used to assist in mass evacuation, but to also help eliminate trips and falls. On regular concrete steps trips and falls are very common because of the blended color of concrete that sometimes a person's vision can't differentiate. I have listed a few FAQ's below for your review as well. Feel free to also visit www.us.ecoglo.com to learn more about products that are related overall. You can view a variety of testimonies from actual customers who have installed some form of photo-luminescent products.

Below gives you a general overview of the type of product I represent. There may be differentiations in other varieties!

How much light do you need to charge Ecoglo?

Ecoglo is charged by whatever light is available in the environment (whether indoors or outdoors).

It takes approximately 10 mins of sunlight or 60 mins of a 200 lux fluorescent light to fully charge Ecoglo. From fully charged Ecoglo is still visible after 11 hours.

The amount of light received will determine how long Ecoglo sustains its brightness. For example after 5 minutes of charging by a moderate light (eg 150 lux fluorescent light) Ecoglo will still be visible after 2.5 hours. After 30 minutes of charging, with the same light, Ecoglo will still be visible after 7 hours.

It takes approximately 10 minutes of sunlight to fully charge Ecoglo. From fully charged Ecoglo is still visible after 11 hours.

Note that Ecoglo is easily charged by indirect light even on an overcast day. Providing a window or skylight indoors will also be sufficient to charge Ecoglo.

Read detailed information on [Charging times](#)

Read detailed information on [Luminance Decay](#)

How do you attach it?

We use a strong polyurethane adhesive as well as screws/fixers on the full nosings or where there is concern over how level the surface is.

What is the green photoluminescent portion made of?

It is strontium aluminate, a mineral that is mined from the earth. Ecoglo receives it in a powder form, mix it with a clear durable polymer then bake it onto aluminum to provide a highly durable product. We have tested over 100 powders to ensure we have the best one for brightness and longevity.

Is this system required by legislation?

Yes photoluminescent systems are being added to building codes around the world. As a result of a Task Force into safety after the 2001 World Trade Center attack all office buildings in New York, over 75 feet high, must now have photoluminescent markings in all exit pathways. The reference standard RS6.1 was promulgated in May 2005, and was referenced into the New York City building code by New York City Local Law 26, 2004. Performance requirements include a minimum luminance at 90 minutes of 5mcd/m² and conformance to tests for flammability, toxicity, radioactivity, washability and (optionally) UV stability. Ecoglo products easily meet these code requirements.

ICC has followed the lead with new code being added to Chapter 10, Means of Egress, in the 2007 International Building Code Supplement. The new code requires non electrical exit path markings in new non-residential buildings of 75ft height or more. Markings are required on all step edges and handrails, and as perimeter markings of the exit pathways, including stairwell landings. The most recent ICC code hearings have confirmed the 2007 requirements and added requirements for low level exit signs, exit door frame markings and obstruction marking. These amendments will be published in the 2009 edition of the IBC.

What are the best lights to use?

Fluorescent, metal halide or mercury vapour lights are great sources of UV light - the best charging light for Ecoglo. Halogen and other incandescent filament lights are not as rich in UV so will need to be brighter for Ecoglo to work as well.

How long will Ecoglo last before it needs replacing?

Correctly installed Ecoglo will last for up to 30 years.

How does the system respond to cleaning?

Tests have shown that the Ecoglo system will not be affected by most cleaning chemicals, however avoid the use of highly alkaline (greater than pH 12) undiluted cleaning chemicals.

Many Ecoglo customers use high pressure water cleaning with no affect on the product. Steam cleaning is not recommended.

Is the system patented?

Ecoglo Ltd has applied for and/or been granted patents in a wide range of jurisdictions. The patents apply to the method of production, the apparatus used in production and the product itself.

Additional patent applications have been lodged relating to advances made by Ecoglo Ltd's ongoing research and development activities.

How comprehensive has your testing been?

The Ecoglo product set has been subjected to a range of ASTM tests for performance including luminance, washability, non-slip performance and resilience, UV resistance and others.

A full list of the tests and results can be obtained by contacting Ecoglo Customer Service at 888-679-4022.

If you're looking for emergency backup lighting Ecoglo has a range of photoluminescent products that can keep users safe, such as: [Step Contrast Strips](#), [Non-Slip Strips](#), [Photoluminescent Strips](#), [Step & Handrail Products](#), [Carpet Nosings](#), [Handrail Strips](#), [Thresholds](#) and [Markers & Signage](#).

Contact Ecoglo for a quick [quote](#) or to obtain more information about our [emergency lighting products](#). You can also read our article about environmentally friendly Ecoglo [exit signs](#).

As you can see photo-luminescent products are not only made for the egress of stairs, but in a variety of forms that add safety in a variety of environments. Lastly, I would like to submit the most detailed study that I am aware of on photo-luminescent products and their effectiveness in an actual evacuation study based out of Canada. It is provided by the Institute for Research in Construction. It goes over the case study of what was found as well as factors such as if L markers are less or more effective than full egress markers. I think you will find it beneficial in answering and determining some of the questions that have been brought forth by both industry and issues brought up by building owners. I believe that some of you may have reviewed in a past submittal, but wanted to make sure all council members were aware of the study.

It is attached for your review!

Thank all of you for your time,

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NOTE: Mr. Graham also submitted the [attached study](#) as part of his testimony