

Submission to the Panel on Public Service
Meeting on 15th July 2013
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This submission identifies one disability affecting one in 30 people world wide. This submission also provides a simple, low cost solution to the problem.

There are more Employees who suffer from light disability than there are employees in wheel chairs. The lighting industry has tried to limit the number of people negatively impacted by CFL, LED and florescent lighting to just 1/50. **However, medical experts show the figure to be 1/30 people suffering disability under CFL, LED and florescent tube lighting.**

This is an unnecessary disability and could easily fixed by allowing employees the right to be given incandescent lighting in the workplace.

Such a change would also remove cancer causing toxins from the workplace, thus providing an all-round healthier environment.

Such a simple right would place Hong Kong ahead of the EU and the USA in terms of disability in the work place.

Incandescent lightbulbs produce light of a similar spectrum to daylight. They do not flicker, do not give off radiation and do not contain cancer causing toxins.

CFL and LED lighting produce a light spectrum so different than daylight they cause headaches, eyestrain, concentration problems, mental disorders, stress, and skin rashes – all of which impact negatively on work performance and in many cases across the EU have prevented people from entering the workplace.

Cancer toxins in CFL and LED lightbulbs make such lighting unsuitable for all buildings with centralised air conditioning units and sealed windows – all lightbulb manufactures specifically exclude liability where CFL bulbs are broken under such conditions – this is because the mercury in CFL bulbs is in the form of a vapour which is 1000 times more toxic than mercury in a solid form. Yet many public buildings are using this type of lighting in conditions that are putting the health of employees at risk – the lighting industry knows of the risk and has excluded all liability for such risk.

Michelle AU and Chistine Loh have been invited to break just four CFL and 4 LEDs under such conditions but have refused to do so. The Environment panel, of which several members of this panel are also members, have also been invited to take this test – none have accepted – but still continue to promote CFL and LED lighting – without informing the public of the differences between CFL and LED lighting and the cancer toxins they contain – remember the incandescent bulb, the environment panel and government are trying to ban, contains no toxins and produces a light spectrum the same as natural light.

It is not acceptable to hide behind research funded by the lightbulb industry and their sponsored green groups and ignore independent medical research – and not inform the public of the differences and problems of CFL and LED lighting.

At least 1/30 people are made ill by CFL and LED lighting are unaware of the cause of their illness because governments are refusing to inform the public of the differences between lightbulbs and the impact on health lightbulbs have – there is too much money on the line.

It is totally unacceptable that this government has sat back and allowed green groups – sponsored by the lighting industry – to promote toxic CFL and LEDs – it equates to promoting, and increasing disability in the workplace just to increase the profit for bulb companies – who have admitted that CFLs do not save energy – so no energy saving excuses!

CFL and LEDs are totally unsuitable for landfills. CFL and LEDs do not save energy – the industry admits it – promoting CFL and LED lighting simply promotes profit for the lighting industry.

LED lights are not suitable for humans in general because LED light is laser light and causes damage to the retina – particularly young children.

Below is a quote from an optician who has identified CFL and LED lighting as causing harm to eyes:

“I am seeing increasing numbers of patients with problems which are caused by low energy lighting.

I have four patients who are badly affected by low energy lighting and whose lives are severely restricted because of this problem. Those in employment have had to be given home working arrangements by their employers because of they cannot tolerate the lighting in their workplaces. None of them is able to go into supermarkets or many other public places. Their lifestyles are limited and they cannot take part in the usual day-to-day activities that we all expect to be able to do because of low energy lighting. Other buildings such as theatres, churches and other public buildings are problems for them and are becoming more so with the increasing use of low energy lighting.

The people I see who are badly affected by low energy lighting are not affected by incandescent light bulbs, which are being

withdrawn. Their problem is due to the increasing use of low energy lighting.

The problems are not only restricted to those who are badly affected. I am also seeing more and more patients who have had their eyes tested within the last 6 months or so. They come to me saying that their eye sight has become worse. I test their eyes and there is no change. My next question is have they changed the lighting in their house? The answer is always yes they have gone over to low energy lighting. I advise them to use incandescent bulbs, at least in the areas where they will be reading.

There are increasing problems in workplaces for people that I am seeing too as employers are encouraged to install low energy lighting.

These problems are not just for me with my patients but for all optometrists. The problem is becoming more widespread and needs to be addressed.

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ref: <http://spectrumalliance.co.uk/support-from-medical-professionals>

CFL and LED lighting also need to be kept at least 3 feet away from an adults head – more for a child – yet these lightbulbs can be found in school study lamps and on employees desks close to heads – the risk is one of brain tumours. Likewise, Professor Magda Havas et al conclude that the risk of cancer from being too close to CFL/ tube lighting increases by a factor of 5 when compared to incandescent lighting see link below to my article summarising the medical and political impacts of CFL and LED lighting:

‘Energy saving’ bulbs are *the asbestos of the 21st Century*. Just using an ‘energy saving bulb’ can make you feel tired, cause eye strain, headaches, skin rashes and even skin cancer. If you are exposed to a broken ‘energy saving bulb’, you run the risk of

developing long term cancer of the liver, kidneys and brain. Believing the claim that 'energy saving bulbs' are safe, and save energy, is a bit like believing Blair's claim that Saddam Hussein had weapons of mass destruction.

All 'energy saving' lighting, LED and CFL, harm humans in two ways. First, harm arising from just being close to them; this harm ranges from just feeling lethargic, to skin cancer. Second, harm from the toxins released when they break exposes people to a risk of a number of cancers in the long term — if you have any doubts about this, ask your Philips sales representative or Greenpeace campaigner to break a couple of high priced 'energy savers' and breathe deeply. Not all light is the same. Incandescent bulbs produce healthy light; they mimic the spectrum of natural light, they don't flicker the same as 'energy savers', don't produce harmful radiation, and don't contain harmful toxins. In contrast, 'energy saving bulbs' contain a cocktail of toxins, produce harmful radiation, produce a lumpy light spectrum, and imperceptibly flicker. The following diagram [coming soon] shows the smooth healthy spectrums of light produced by tungsten incandescent lights compared to the lumpy unhealthy light spectrum produced by LED and CFL lights.

There is a real risk of skin cancer from the radiation CFLs produce. Dr Colin Holden, President of the British Association of Dermatologists, explains this risk as follows:

It is important that patients with photosensitive skin eruptions are allowed to use lights that don't exacerbate their condition. Photosensitive eruptions range from disabling eczema-like reactions, to light sensitivities that can lead to skin cancer.

In 2011 Andreas Kirchner, Environmental spokesman of the Federation of German Engineers, re-emphasized the mercury problems of CFLs and the electromagnetic radiation they produce:

Electrical smog develops around these lamps. They should not be used in unventilated areas and definitely not in the proximity of the head.

Yet, even schools are using 'energy savers' in study lamps that are placed close to a child's head.

Magda Havas, Associate Professor at Trent University, Canada, similarly warns of the dangers of Electromagnetic Field (EMF) radiation from CFLs:

CFL's produce a frequency range known to produce adverse effects on one's health. Teachers who taught in classrooms [with such lighting] had a 5-fold increase risk of cancer (risk ratio 5.1) that was statistically significant. ... studies with diabetics and people who have multiple sclerosis found that when [such radiation] is reduced their symptoms diminish.

Dr. David Carpenter believes it is likely that up to 30% of all childhood cancers come from exposure to EMFs. Professor Anthony Pinching, Associate Dean and Professor of Clinical Immunology at Peninsula College of Medicine & Dentistry, is aware of the consistency with which a proportion of CFS/ME patients report adverse experiences in settings lit with fluorescent lights:

[F]luorescent tubes have been most likely to cause problems. Note that we are not talking about defective fluorescent tubes, but about a problem resulting from the characteristics of the light emitted when they are functioning as intended.

Dr R. Sarkaney, FRCP MD St Thomas' Hospital, London, believes that the reasons behind people feeling ill under CFL lighting are in part due to the ultraviolet light they emit and also because:

[T]here are other differences between incandescent and fluorescent lights such as the 'spikiness' of the spectrum of emitted light. Thus, it is likely that, whatever UV protection is put into place with fluorescent lights, there will always be a group of patients who react to the fluorescent light and can only tolerate incandescent lights.

Owen Z. Perlman, M.D., is confident that:

[T]here are more people impacted by exposure to CFLs than are in wheelchairs.

Dr. John Hawk, from the St John's Institute of Dermatology, London, has similarly observed:

[A] significant number of people with certain skin disorders such as seborrhoeic eczema and lupus cannot tolerate any form of fluorescent lighting in their vicinity. [Such people] can only tolerate incandescent lighting from tungsten filament bulbs.

Dr Hawk was the SPECTRUM observer at the SCENIHR meeting on Compact Fluorescent Lamps, European Commission, Brussels, in October 2011. After the meeting, Dr Hawk wrote:

It seemed to me that the SCENIHR committee, the UK representatives and I were all of similar mind concerning the potentially adverse effects of the lamps. The lighting representatives (three lighting experts from Philips) tried to modify the overall opinion slightly towards suggesting less harm but were not hugely adamant. The overall feeling of the meeting was that the lamps had a number of potentially adverse effects, mostly for abnormally photosensitive subjects but also somewhat for normal ones, on both skin and eye. ... SCENIHR committee members also suggested that the incandescent lamps may not be particularly more wasteful of energy than the new CFLs.

It is simply wrong when green groups and big government assert that because CFLs only contain a small quantity of mercury a broken CFL cannot harm you. When a CFL is broken, mercury is released in its most toxic and deadly form — as an odourless vapour (very different than mercury in your fillings and thermometers). It also means that you do not immediately realise that you have been poisoned. Mercury accumulates in the body and attacks the vital organs — the brain, liver and kidneys — over a long and prolonged period of time. The following are extracts from the U.S. Environmental Protection Agency issued in June 2010:

Before Cleanup: Air out the room. Have people and pets leave the room, and don't let anyone walk through the breakage area on their way out. Open a window and leave the room for 15 minutes or more. Shut off the central forced air heating/air conditioning system, if you have one. Do not use a vacuum or broom to clean up the broken bulb on hard surfaces. If clothing or bedding materials come in direct contact with broken glass or mercury containing powder from inside the bulb that may stick to the fabric, the clothing or bedding should be

thrown away. Do not wash such clothing or bedding because mercury fragments in the clothing may contaminate the machine and/or pollute sewage.

Yet despite these guidelines, bulb companies are still putting out adverts telling you that CFL's only contain a small amount of mercury, or try to mislead you into thinking that their CFL does not contain mercury. Such claims need careful examination. All CFLs, whatever the label says, contain toxic mercury. As Professor Ron Hui points out:

The danger of mercury is measured by its toxicity. Each CFL is a toxic chemical hazard with toxicity thousands times higher than the safety limit. Most of the electronic components and toxic chemicals such as carcinogenic flame-retardant coatings PBDE cannot be recycled.

Similarly Maine DEP tests found that from just one broken CFL:

Mercury concentration in the study room air often exceeds the Maine Ambient Air Guideline has particular significance for children rolling around on a floor, babies crawling, or non mobile infants placed on the floor.

If advertisements for bulb companies are telling you their 'energy saving' bulbs are safe, why the need to issue these guidelines? The answer of course is that 'energy saving' bulbs are not safe — and the bulb companies know it. Governments across the globe committed to banning incandescent bulbs without doing their homework; so they now have to talk out of both sides of their mouths — one side telling you they are safe, and the other side issuing safety warnings in the form of clear up and disposal instructions. Big government is also wary of the power of heavily funded green groups supporting the ban on incandescent bulbs and is scared of the demagogic behaviour they are capable of — it is so much easier to bully the elderly and weak who are not capable of staging elaborate protests or riots.

<http://capitalism.hk/2012/03/08/light-bulb-bans-how-big-government-is-literally-killing-you/#>

and the lamp guide:

<http://thelampguide.blogspot.se/>

And RTHK June 2013 documentary on lighting and health:

<http://programme.rthk.hk/rthk/tv/programme.php?name=tv/hkcc&p=858&d=2013-06-03&e=220169&m=episode>

www.spectrumalliance.co.uk

<http://ceolas.net/#cc21x>

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