

Strobe Lighting Safety

When using any sort of strobe lighting or effect, the risk of triggering seizures in photosensitive epileptics is present.

Statistics for the UK suggest between 1 in 4000 and 1 in 7000 members of the general population is affected in this way. Many more people report discomfort during prolonged exposure to intense strobe effects. Most people suffering from epilepsy (around 1 in 200 members of the general population) do not experience any more adverse effects due to strobes than members of the general population; only epileptics who are specifically photosensitive are affected.

While the only sure prevention is to avoid using any sort of strobe (or strobing effect) altogether, the risk can be reduced by limiting the duration of strobe effects - UK guidelines suggest no more than 30 seconds at any one time. The same guidelines also suggest displaying notices at the entrance to the venue, warning of the use of strobe effects. Following both suggestions is strongly advised! The risk of seizures is also believed to be lower when the flash rate is below 5 Hz (5 flashes per second).

There is no legislation specifically covering the use of strobe lighting. However, in places of public entertainment the licensing authority may choose to set conditions on the use of strobe lighting effects as part of the license.

Guidance exists in 'The Event Safety Guide - A guide to health, safety and welfare at music and similar events', published by the Health and Safety Executive. This is the recently published second edition that is known as the 'Pop Code'. The guidance on this document is not legally binding but paragraph 6 notes that entertainment licensing authorities may refer to this guide when considering appropriate license conditions.

Chapter 17 of the guide, dealing with special effects, fireworks and pyrotechnics, includes some advice on strobe lighting as follows:

"Carefully consider the use of strobe lights, as under some conditions they may induce epilepsy in flicker-sensitive individuals. Whenever strobe lights are used, arrange for a prior warning to be given at the entrance to the event or in the programme.

If strobe lights are used, keep flicker rates at or below four flashes per second. Below this rate it is estimated that only 5% of the flicker-sensitive population will be at risk of an attack. This flicker rate only applies to the overall output of any group of lights in direct view, but where more than one strobe light is used the flashes should be synchronised.

To reduce the risk further, mount lights as high above head height as is practicable. Where possible, the lights should be bounced off walls and ceilings or diffused by other means so that glare is reduced. They should not be used in corridors or on stairs. Continuous operation of strobe lighting for long periods should be avoided. Further

information is available in the HSE HELA guidance note 'Disco lights and flicker-sensitive epilepsy'."

To summarize:

- There is no law covering strobe lighting specifically.
- HSE guidance is published as above but is not legally binding.
- Requirements for operation may be set by the licensing authority.

Reference:

'The Event Safety Guide - A guide to health safety and welfare at music and similar events' published by the Health and Safety Executive, reference HSG195, ISBN 0 7176 2453 6. It is available from HSE Books - telephone +44 (0)1787 881165.

See also: