# Worldwide audience scanning laws

The following information is *NOT* official. ILDA is not liable for the accuracy of this information, which was compiled in mid-2014. Anyone doing audience scanning is responsible for following all local laws and regulations.

In addition, ILDA Members are required to <u>affirm the safety of their laser shows</u>, regardless of any laws or regulations. Specifically, ILDA Members affirm that

- 1) Pulsed lasers should never be used for audience scanning, and
- 2) If they do not understand audience-scanning standards or do not have the equipment and procedures to ensure audience safety, then they will not do audience scanning.

# Audience scanning status in 50 top countries, as of mid-2014

A: Audience scanning requires a permit or other explicit permission in advance. This permission may be required by the government and/or by the venue operator. Austria, Finland, Germany, Scotland, Sweden, United Kingdom, United States

- B. Audience scanning requires a permit, but permission is almost never given. (This was the situation in the U.S. up until a few years ago.) None at this time
- C. Audience scanning requires a permit but this law is often not followed or enforced. Japan, Luxembourg
- D. Audience scanning is allowed without a permit (no specific laws or regulations). Belgium, Czech Republic, France (outdoors), Greece, Indonesia, Republic of Ireland, Italy, Netherlands, Portugal, South Korea, Spain, Thailand, Turkey
- E. Audience scanning is not allowed under almost all circumstances. France (indoors),
- F. The situation is unclear. Usually no permission is required for audience scanning, but authorities might unexpectedly deny permission to stage a show on a case-by-case basis. China, Egypt, India, Iran, Nigeria, Poland, Qatar, Russia, Saudi Arabia, United Arab Emirates

lettpa/fiowav.lassers/bisyclafeAsisdo/atideel/laonstackb/æde/staten/html - 1 -

G. Each state/canton/province may have its own laws. (This may be in lieu of federal laws, or in addition to federal laws.) Switzerland

X. Unknown status. Algeria, Argentina, Australia, Brazil, Canada, Chile, Denmark, Hong Kong, Israel, Kazakhstan, Malaysia, Mexico, Norway, Pakistan, Peru, Philippines, Singapore, South Africa, Venezuela

## **Selected country details**

Our thanks to the following persons for helping to provide information:

Peter Broerse, Włodzimierz Duval, Ryan Hagan, Jasper Hampton, Alex Hennig, Johan Lindell, Alain Neuens, Andy Stentiford, and James Stewart

Anyone with additional information should contact ILDA, to add to this list. Again, please note that the information below is NOT official or guaranteed to be correct.

Click on a country to find out about audience scanning in that country:

- Austria
- Finland
- France
- Republic of Ireland
- Luxembourg
- Netherlands
- Poland
- Scotland
- Sweden
- United Kingdom (outside Scotland)

#### Austria

Austria has the Status A (permit required), like Germany. The following harmonized standard are used: OENORM \$1105:2014.

#### **Finland**

You need to have a permit from the Finnish Radiation Authorities and in the Finnish regulations it is clearly stated that no audience scanning is allowed in Finland. In the permit all lasers used and techs working in the show should be listed. However, lately there have been shows where the authority has given special permits to shows with audience scanning effects within their MPE levels (which is as low as 1mW/cm2). All audience scanned shows must be measured on site and inspected by STUK. As far as I know only grating effects are allowed to be used (no scanned effects).

#### France

As far as France is concerned, there are certain regions that do not permit the use of any Class 4 laser devices for shows, audience scanning or not. Suppliers have found ways around this. (Usually involving reclassifying the projectors to Class 2.)

# **Republic of Ireland**

In 2010, Irish "Safety, Health and Welfare at Work" regulations came into force. This page at the Health and Safety Authority has links to the regulations.

A quick reading indicates that the regulations appear to apply to employees only. However, anyone working with lasers in Ireland should check to see if HSA or other agencies have laws relating to audiences and the general public.

# Luxembourg

Luxembourg is Status A (permit required) but also C (permits often not followed or enforced) is pretty much the case. The law says no radiation above the MPE should get the chance to touch living things, including humans.

#### **Netherlands**

No applicable law other then a law about laser pointers, however...the ARBO (Dutch regulations about safe working environments) does adhere to the NEN 6025x standard and the new generic advisory given out by the EU that personnel working in such environments must be able to carry out their work in a safe and non-harmful way. There is some advise given which we are still trying to unearth into something more tangible.

So in general in the Netherlands, audience scanning is allowed but it is a general rule of thumb with our professional colleagues here to adhere to the German TUV standards to stay at least at 3 meters above ground level with the lowest beams. Unfortunately there is no real control over this and we've seen companies hit audiences with beams and powers far over safe levels.

#### **Poland**

In Poland we have regulation IEC 60825-3:1995, but I have never encountered with permission for audience scanning. So in Poland is Status F: The situation is unclear.

### Scotland

Person A wrote:

My experience of providing laser shows in Scotland is that audience scanning is vetoed at local authority level every time. I provide risk assessments and method statements with comprehensive MPE calculations to promoters and venue owners for each show, and I've invited Council H&S officers to venues for a full inspection, even providing them with a laser power meter to verify all audience scanning is operating well within MPE levels.

However, usually once our documents have been lodged with local authorities' H&S teams, we are invariably asked for two things: 1) an image/graphic representation of the proposed scan area within the venue and 2) a statement showing that we will not audience scan. Following this, we rarely ever receive a site visit.

We've found Glasgow Council to be particularly tricky to work with, as they also insist that the audience will not be exposed to any diffuse (not specular) reflection from surfaces targeted by scanned beams. With this council controlling many of Scotland's larger venues such at the Hydro, it can prove very tricky to offer a client a show with impact whilst ticking the boxes for the archaic legislation that restrains us.

Though we've considered going down the PASS [Professional Audience Safety System] route, we feel that many of the Scottish governing bodies are not au-fait with current UK legislation, so it's usually a lot easier to just say "no audience"

Audience scanning lasers: Regulations and practice

scanning". The venues here operate within their control, so if they say no, then the venues daren't override the decision, even if the legislation is clear.

## Person B responded:

Up until recently [mid-2014] the two areas where audience scanning wasn't allowed was Manchester and Livenation venues, like the O2 in Dublin, where you were asked to sign a form [stating that no audience scanning of any type would be done].

These were where we would find the no audience exposure policy being forced.

This situation (since the Justin Timberlake tour) has now changed. But there are very strict requirements in place.

We have never had an issue exposing the audience in Scotland. In fact Glasgow City Councils EHO has good knowledge of lasers and from our experience was happy to work with us to achieve the required effect.

#### Sweden

You need to have a permit from the Swedish Radiation Authorities whenever doing a laser display. Before getting a permit from the authorities certain forms have to be filled out and there you have to inform that you are doing audience scanning effects. If they should issue a permit for a show with these effects the show producer should supply a RA and Method Statement and do measurements on site to make sure MPE levels are not exceeded.

Generally all shows are inspected by the authorities and it is generally easier to get a permit using grating effects. If there are scanned effects the lasers should be equipped with necessary scan-fail devices (e.g. PASS). There have been shows where the intention has been to do audience scanning but after the inspection no audience scanning has been allowed.

## **United Kingdom (outside Scotland)**

Person A writes:

We have rules here in the UK that are to be followed. We do not need prior written permission from anyone to produce a show with exposure.

If your paperwork is of suitable standard and you have the correct safety requirements in place even the venues that insist on a 3rd party will not give written consent. You will get an inspection like anywhere else in the world (all be it a few hours longer) and it will be signed off, but this takes place on the day.

We supply paperwork to a venue, this includes risk assessments and method statements. Plus the most up-to-date visual of the intention and copy of the company insurance.

Not all venues/festivals/film studio's will get a 3rd party in to inspect/verify what you are doing so I guess it falls into the category of 'No special permit or written authorization is required as long as you follow the law.' You could even include the word everywhere: 'No special permit or written authorization is required EVERYWHERE as long as you follow the law'.

#### Person B writes:

I do not know any governing body in the UK now that have a blanket no policy but I doubt your paperwork will be signed off if your not using technology like PASS and engineering mechanisms like diverging lens. Using just one of the above could result in it not being accepted but again this is not across the board.

It's a very interesting subject, as its still very inconsistent across the UK. This is hopefully going to change very soon with the HSG being updated. It will then with the help of PLASA be distributed to venues and local authority so we should see a better understanding across the board for all.

## Person A responded to Person B:

Though I agree with you that there is no blanket policy, I do feel that this is maybe an area of our industry that has been hit by public sector staffing shortages. We all know what a strain these guys are under. If you can say "no audience scanning" and not bother with a site visit, rather than spend your weekend at a venue after working all week, it has to be tempting. Let's hope the new documentation makes a difference. This coupled with a wider knowledge of systems such as <a href="PASS">PASS</a> and <a href="SafetyScan">SafetyScan</a> could lead to an interesting future for UK shows.

#### Person C writes:

There is a good summary about the status and legal obligations of audience lettpa/fiowark.lassers DisspekarjeAsisvo/atjoheck/aonstackb/aede/status/html - 6 -

	ww.lvroptical	