

LEGAL REQUIREMENTS FOR EVENTS INVOLVING LASERS AND SOUND



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Home Affairs FDHA
Federal Office of Public Health FOPH

IN BRIEF:

Who is responsible? What needs to be notified where?
Which rules apply to which laser classes?
When does the sound level need to be recorded?

This short leaflet answers these and other questions asked by the organisers of events involving lasers and/or sound.

Events of this kind have been regulated since 1 June 2019 in the Federal Act on Protection against the Risks associated with Non-Ionising Radiation and with Sound and the related Ordinance (O-NIRSA). The provisions of this legislation apply to all commercial, professional, public and private events.

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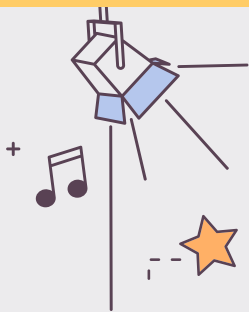
WHAT YOU NEED TO KNOW ABOUT EVENTS INVOLVING **LASERS.**

DOES IT NEED TO BE NOTIFIED OR NOT?

Events involving laser beams in all laser classes must be notified to the Federal Office of Public Health (FOPH) at least 14 days in advance. This requirement does not apply to events involving laser devices of class 1 and 2 provided that the beams are not directed into airspace.

NOTE

Events involving lasers and sound must be notified twice: the former by the organisers or the qualified person to the FOPH in accordance with the laser class, the latter by the organisers to the competent cantonal or communal reporting office.



WHO NEEDS TO NOTIFY WHAT TO WHOM?

Anyone wishing to organise an event involving class 1 or 2 laser beams directed into airspace needs to report this directly to the FOPH.



Access the notification portal here:

www.gate.bag.admin.ch/mpl/ui/home

Anyone wishing to organise an event involving laser beams involving classes 1M, 2M, 3R, 3B or 4 lasers must seek assistance from a qualified person and provide them with the following information so that the event can be notified: company, first name, last name, address, telephone number, e-mail address.

The organisers must also provide the qualified person with timely written confirmation of the latter's involvement in an event with laser beams and be able to show this confirmation to the FOPH at any time on request.



Find people with O-NIRSA-compliant certificates of competence here:

www.gate.bag.admin.ch/mpl/nissg/ui/msl/person/search



WHO CHECKS THE NOTIFICATIONS?

The FOPH checks incoming notifications. It checks compliance with O-NIRSA and can order immediate measures to be taken on the spot to ensure that the public is protected. Any costs must be borne by the qualified person.

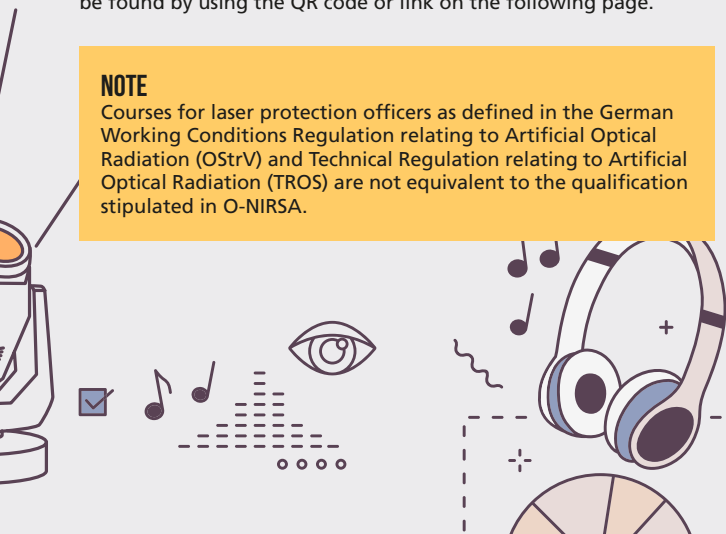
Accordingly, the organisers must grant the FOPH and a measurement company access to the premises and locations necessary to assess the laser event.

HOW DOES SOMEBODY BECOME A QUALIFIED PERSON?

Anyone who operates laser equipment in classes 1M, 2M, 3R, 3B or 4 must be able to demonstrate that they are qualified in compliance with O-NIRSA. This single-issued qualification is obtained from the examining agencies recognised by the FOPH; these can be found by using the QR code or link on the following page.

NOTE

Courses for laser protection officers as defined in the German Working Conditions Regulation relating to Artificial Optical Radiation (OStrV) and Technical Regulation relating to Artificial Optical Radiation (TROS) are not equivalent to the qualification stipulated in O-NIRSA.



OVERVIEW OF THE REQUIREMENTS FOR EVENTS INVOLVING LASERS

Events involving laser radiation	Responsibility	Training	Notification	On site for initial set-up of the laser equipment ¹	On site during the event
Laser class 1 or 2 in a closed room	No regulations and no requirements in O-NIRSA				
Laser class 1 or 2 in the open air (or beams directed into the open air)	Organisers	None	Organisers (beams directed into airspace)	–	–
Laser class 1M, 2M, 3R, 3B or 4 without laser radiation in the audience zone	CC1 / CC2 ²	CC1 / CC2 ²	CC1 / CC2 ²	CC1 / CC2 ²	CC1 / CC2 ²
Laser class 1M, 2M, 3R, 3B or 4 with laser radiation in the audience zone	CC2 ²	CC2 ²	CC2 ²	CC2 (instructed CC1) ²	CC2 (instructed CC1) ²

¹ Planning, programming the laser show, installation, calibration and testing of laser equipment

² CC1: Certificate of competence level 1 / CC2: Certificate of competence level 2



You can find more detailed information here:

www.bag.admin.ch/laser-en

WHAT YOU NEED TO KNOW ABOUT EVENTS INVOLVING SOUND.

DOES IT NEED TO BE NOTIFIED OR NOT?

Events involving electroacoustically amplified sound exceeding an average sound level $L_{Aeq,1h}$ of 93 dB(A), determined over one hour must be notified by the organisers to the competent cantonal offices no later than 14 days in advance. In some cantons these are the communes. Unamplified events such as concerts given by orchestras, brass bands or marching carnival bands do not need to be notified.



Access the cantonal reporting offices here:
www.bag.admin.ch/son-annonce

NOTE

A one-hour sound level of 93 dB(A) and above is usually reached at discos and concerts with amplified sound; they must therefore be notified.



OVERVIEW OF THE REQUIREMENTS FOR EVENTS INVOLVING SOUND

The organisers' obligations are basically determined by the average sound level and the duration of the event, as shown in this table and on the following pages.

	Events with electroacoustically amplified sound			Events without electroacoustically amplified sound
	93-96 dB(A) no time limit	96-100 dB(A) less than 3 h	96-100 dB(A) more than 3 h	
Average sound level $L_{Aeq,1h}$ Duration of event				93 dB(A) and above
Notify event	X	X	X	
Notify maximum sound level	X	X	X	
Inform about possible hearing damage	X	X	X	X
Provide hearing protection free of charge	X	X	X	X
Monitor sound level	X	X	X	
Record sound level			X	
Provide a compensation (chill-out) zone			X	



You can find more detailed information here:
www.bag.admin.ch/son

DO YOU NEED TO INFORM THE PUBLIC?

At events with a maximum average sound level in excess of 93 dB(A) the public must be made aware of the risk posed by high sound levels. This also applies to events without electroacoustically amplified sound. Posters providing information for the public can be obtained free of charge from the FOPH and some cantons.

DO YOU NEED TO PROVIDE HEARING PROTECTION?

At all events with a maximum average sound level in excess of 93 dB(A) the public must be provided with earplugs free of charge. This also applies to events without electroacoustically amplified sound.

DO YOU NEED TO MONITOR THE SOUND LEVEL?

The organisers are responsible for ensuring compliance with the sound level limits, even at events which do not have to be notified. At amplified events with a maximum average sound level in excess of 93 dB(A) the sound level must be monitored using a sound level meter.

This can be done with any sound level meter capable of measuring an A-rated sound level (LA) and determining an equivalent continuous sound level L_{Aeq} . It is recommended to use calibratable class 2 measuring equipment.



Access the industry recommendations for sound meters and procedures here:

www.bag.admin.ch/son-recommandations



DO YOU NEED TO RECORD THE SOUND LEVEL?

At events with amplified sound and a maximum average sound level in excess of 96 dB(A) which last longer than three hours, the sound level needs to be both measured and recorded (A-weighted equivalent continuous sound level, averaged over five minutes $L_{Aeq, 5min}$).

The recorded sound monitoring data and details of the measuring position, determination position and sound level difference (loudest point – measurement point) must be kept for six months and submitted to the executive authority on request.

DO YOU NEED TO PROVIDE A COMPENSATION (CHILL-OUT) ZONE?

At events with amplified sound and a maximum average sound level in excess of 96 dB(A) which last longer than three hours, a compensation (chill-out) zone must additionally be provided for the public.

This must comprise at least 10% of the area designated for the public. Storage rooms, storage areas, toilets and public areas in front of the venue may not be counted towards this space; smoking rooms may be counted provided that the smoke-free part of the chill-out zone is larger. Since the maximum permissible one-hour sound level in the chill-out zone is 85 dB(A), it is recommended not to provide additional sound in this zone.

