

University Occupational Health and Safety Guidance Notes

LASER INCIDENT RESPONSE PLANS

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1. PURPOSE

The aim of this document is to provide a set of basic guidance for all personnel involved in a particular scenario on the immediate and follow up actions that may need to be taken in the event of any situation involving lasers or laser based devices.

2. LASER INCIDENTS

The lasers in use at the university may operate at very high powers and have the potential to cause serious health hazards to not only those operating or employing them, but also other personnel that may be in the vicinity.

These plans are available to departments, but they must not be viewed as a complete response. Departments are required to add to the plans as necessary to ensure that all potential emergency situations are considered.

2.1 Incidents leading to burns of a person's skin

If a person receives a burn to any part of the skin, which has been caused by a laser, then the following actions should be taken:

1. Shut off or make the laser safe by the safest means possible (emergency cut off, local power switch, normal power down operations or the use of shutters etc.).
2. Summon assistance from first aiders (All security wardens are qualified, and can be contacted on Ext: 2222 or Ext: 3333), giving the following:
 - a. Department & location
 - b. Contact number.
 - c. Name of casualty,
 - d. Brief details of the injury – Burns etc.
3. Stay with the casualty until help arrives and give reassurance as you are able.
4. Inform the supervising person or contact the DRPS
5. Contact SHaW and inform them of the situation (Contact numbers at the front of the document).
6. Complete a report on the SIRIS system and a copy of the laser grab card and return both to SHaW as soon as possible.

2.2 Incidents causing an eye strike by laser

In the event of a person suffers an eye strike by a laser, the following actions should be taken:

1. Shut off or make the laser safe by the safest means possible (emergency cut off, local power switch, normal power down operations or the use of shutters etc.).
2. Summon assistance from first aiders (All security wardens are qualified, and can be contacted on Ext: 2222 or Ext: 3333), giving the following:
 - a. Department & location
 - b. Contact number.
 - c. Name of casualty,
 - d. Brief details of the injury – Eye strike by laser, Burns etc.
3. Ensure that the supervising person or DRPS is informed
4. Stay with the casualty until help arrives and give reassurance as you are able.
5. Take details of the laser involved and complete the laser safety grab card

6. Casualty is to be taken to:
Accident and Emergency Dept.
Glasgow Royal Infirmary
84 Castle Street
Glasgow
G4 0SF
0141 211 5608 / 4484 / 4314
7. Casualty is to be accompanied to the hospital, ensuring the laser safety grab card is taken with them
8. Contact SHaW and inform them of the situation as soon as is possible. (Contact numbers at the front of the document). The URPO will attend at the earliest opportunity.
9. The laser involved and the lab in which it is used will be placed out of use until a preliminary investigation has been completed by SHaW. Once complete, and pending a more in-depth investigation, the lab and the lasers it contains may be placed back in use.

The patient is to attend immediately and regardless of if they feel fine or report no signs of injury

Laser Emergency

Quick Info Card

In event of laser eye strike, contact Security Services immediately on Ext: 2222 or 3333. All security wardens are trained first aiders and will be able to provide immediate assistance

Injured person is to be taken as soon as possible to:

Accident & Emergency Dept.
Glasgow Royal Infirmary
84 Castle Street
Glasgow
G4 0SF

The injured person is to attend hospital as soon as possible, regardless of exposure, whether they state they feel well or have no signs of injury. They are to be accompanied at all times by another member of staff.

Ensure a call is made to the A&E department to notify them that the injured person is coming and that they will need to be seen by an ophthalmologist.

Someone aiding the injured person is to ensure the below details are completed, and that these are taken by the person accompanying them to the hospital so that hospital staff have as much information as possible regarding the injury.

Name of Injured Person							
Affected Eye	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; text-align: center;">Left</td> <td style="width: 33%; text-align: center;">Both</td> <td style="width: 33%; text-align: center;">Right</td> </tr> <tr> <td colspan="3" style="text-align: center; font-size: small;">(If unsure, circle Both)</td> </tr> </table>	Left	Both	Right	(If unsure, circle Both)		
Left	Both	Right					
(If unsure, circle Both)							
Type of Exposure	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; text-align: center;">Full Beam</td> <td style="width: 33%; text-align: center;">Specular</td> <td style="width: 33%; text-align: center;">Diffuse</td> </tr> </table>	Full Beam	Specular	Diffuse			
Full Beam	Specular	Diffuse					
Laser Type	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; text-align: center;">Pulsed</td> <td style="width: 50%; text-align: center;">Continuous Wave</td> </tr> </table>	Pulsed	Continuous Wave				
Pulsed	Continuous Wave						
Laser Wavelength	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">nm</td> </tr> <tr> <td style="text-align: center; font-size: small;">(if not sure, state if invisible or state colour if visible)</td> </tr> </table>	nm	(if not sure, state if invisible or state colour if visible)				
nm							
(if not sure, state if invisible or state colour if visible)							
Maximum Power	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">mW</td> </tr> </table>	mW					
mW							
Pulse Length							
Pulse Frequency							