



World Water Safety

INTERNATIONAL LIFE SAVING FEDERATION

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LIFESAVING POSITION STATEMENT - LPS 19

USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)

NOTE: This statement is intended for those lifeguards, acting in a professional or volunteer capacity, who are trained in the techniques of water rescue and resuscitation and who assume a duty to safeguard members of the public at aquatic sites. They may be called lifeguards, lifesavers or both. This statement is not directed at members of the public trained in water safety and rescue techniques, but without a duty to respond, who may also be known, in some areas of the world, as lifesavers.

BACKGROUND

Personal protective equipment, commonly referred to as "PPE", is defined as equipment worn to minimize exposure to serious workplace injuries and illnesses. These injuries and illnesses may result from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. Personal protective equipment may include items such as gloves, safety glasses and shoes, earplugs or muffs, hard hats, respirators, or coveralls, vests and full body suits. (OSHA, 2016)

PPE should be provided and worn where:

- a) Hazards cannot be otherwise prevented or suitably controlled, e.g. By engineering or administration controls, total enclosure, substitution;
- b) Complete protection is essential, e.g. In some occupational environments with uncertain levels of hazards' or
- c) Legislation requires it. (Standards Australia, 1986)

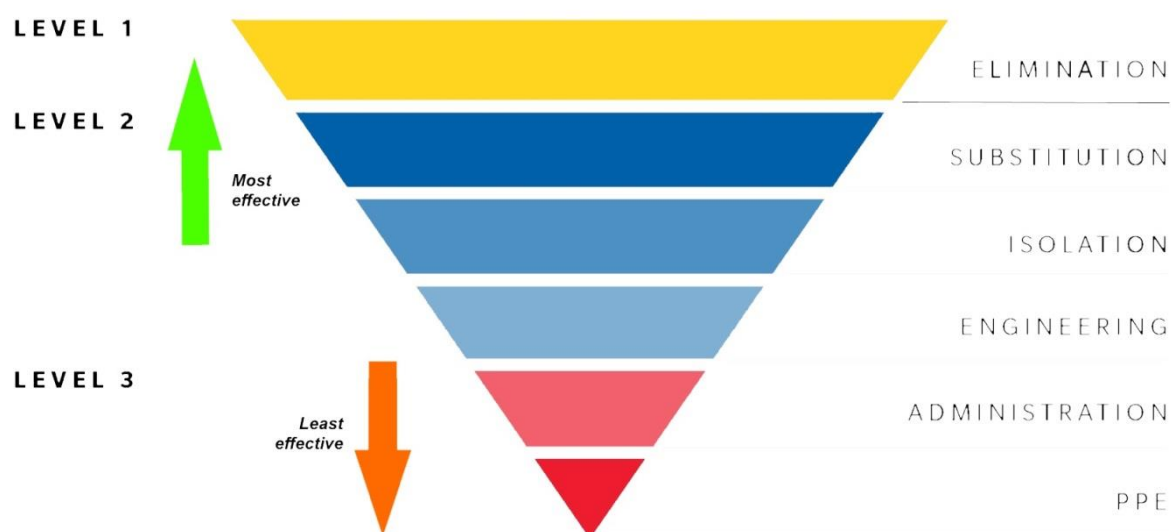


Figure 1: The hierarchy of control (adapted from SafeWork Australia, 2011)

It is important to ensure that PPE is ‘fit for purpose’ for the activity it is being used for. Incorrect selection of PPE may lead to injury or death.

Sometimes it is not practical to expect that a single item of PPE will protect the user from all hazards which they may be exposed to, nor is it appropriate to expect that all designs of particular PPE will protect the user in the same way.

As a result it is essential that:

- A hazard identification and risk assessment be completed for activities that will expose lifeguards to hazards;
- The performance capabilities and specific characteristics of PPE be assessed to determine suitability for each activity;
- PPE be fitted properly to the user to ensure the efficiency of the equipment in protecting the user is not reduced;
- Specific medical conditions of the user be taken into account that may prevent someone from using PPE.

PPE approved for use by lifesaving organizations should comply with national and international standards and relevant local legislation and regulations. PPE sold and purchased within Europe should have the CE marking affixed (European Commission, 2015).

Risk Management Principles (ILS, 2008)

ILS sees the implementation of risk assessments for all aquatic locations as a key element of the strategies to reduce injury and loss of life or other adverse impact in the aquatic environment. A generic framework and the main elements of the risk management process identified are:

- Communication and consultation
- Establish the context
- Risk identification
- Risk analysis
- Risk evaluation

- Development of a risk mitigation plan
- Monitor and review

The risk assessment should ideally:

- Provide a systematic framework for the evaluation of hazards and risk
- Comply with relevant legal and regulatory requirements and international norms
- Be proactive rather than reactive
- Meet the needs of lifesaving services in the submitting nation
- Be based on the best available information
- Be based on best practice and where possible make use of sound science

DISCUSSION

PPE in an aquatic lifesaving context

PPE should be worn by lifeguards whenever they will be exposed to a hazard that cannot be eliminated or minimised by other means, such as substitution, isolation, engineering and administration.

Lifeguards operate in an environment with associated inherent risks, some of which are impossible to eliminate and difficult to mitigate through higher order risk mitigation strategies such as substitution, isolation, engineering and administration. Lifeguards are often called upon to put themselves in danger to save the lives of others in difficulty, however should always take precautions to ensure that they are not putting themselves in unnecessary danger.

PPE is an additional option for lifeguards to further minimise the risks associated with their duties. Lifesaving organisations have a range of PPE available to lifeguards for use. Some examples are shown in the table below.

EXAMPLES OF PPE FOR LIFEGUARDS

Type of PPE	Examples use in lifesaving	Application for lifesaving
Protective garments	Hi-visibility vests, gloves	<ul style="list-style-type: none"> • Lifesaving training • Lifesaving sport • First aid / infection disease protection
Eye protection	Face shields, goggles, safety glasses, sunglasses	<ul style="list-style-type: none"> • UV eye protection • Splash protection from hazardous chemicals • Protection from infectious disease
Head protection	Helmets	<ul style="list-style-type: none"> • Rescue boats • Helicopters • RWC/PWC • SUPs / rescue skis / rescue boards • Lifesaving sport and training
Respiratory devices	Oxygen tanks, air supply respirators	<ul style="list-style-type: none"> • Under water search and diving

Type of PPE	Examples use in lifesaving	Application for lifesaving
Protective / enhanced footwear	Steel capped boots, boots, flippers	<ul style="list-style-type: none"> • Operation of heavy machinery • Rescue boats • In water rescue • Hazardous surfaces
Face protection	Face masks, pocket masks	<ul style="list-style-type: none"> • Resuscitation • Splash protection from hazardous substances
Thermal protection	Dry suits, wet suits, bunny suits	<ul style="list-style-type: none"> • Cold water immersion
Floatation	Lifejackets	<ul style="list-style-type: none"> • Rescue boats • RWC/PWC • SUPs / rescue boards • Lifesaving sport and training
Skin protection	Long sleeved shirts, hats, sunscreen	<ul style="list-style-type: none"> • Sun protection
Hearing protection	Earplugs, ear muffs	<ul style="list-style-type: none"> • When operating around noise for extended periods of time

ILS has a number of position statements that address specific aspects of PPE. These include

1. MPS-02 “Sun Dangers for Lifeguards”
2. LPS-05 “Use of Lifejackets (PFD’s)”

STATEMENT

1. Effective risk management practices should be used by lifeguards to eliminate or minimise risks posed to them by hazards in their operating environment by means other than PPE; that is by implementing more effective risk mitigation strategies such as engineering controls, or by adopting a different system of operation.
2. If the risk to lifeguards cannot be eliminated or minimised through higher order mitigation strategies, PPE must be worn whenever lifeguards could be exposed to the identified hazard.
3. Any secondary risks associated with the usage of PPE should be assessed, and where intolerable minimised, prior to PPE being implemented for the purposes of lifeguarding. If the secondary risks of using PPE remain intolerable after mitigation, alternative measures must be taken to minimise the risk or exposure to the hazard eliminated.

LEVEL OF EVIDENCE

This document is based on expert consensus.

POTENTIAL CONFLICT OF INTEREST STATEMENT

None of the participants in the consensus process leading to this position statement has a conflict of interest with the stakeholder industry, technology, persons or organisations that are identified and/or impacted by the position statement

REFERENCES

1. OSHA (2016), <https://www.osha.gov/SLTC/personalprotectiveequipment/> accessed 31st March, 2016, United States Department of Labor.
2. Standards Australia (1986), AS 1470-1986 Health and safety at work – Principles and practices, Australian Standard.
3. European Commission (2015), PPE Guidelines – Guide to application of the PPE Directive 89/686/EEC, European Commission.
4. SafeWork Australia (2011), Code of practice – How to Manage Work Health and Safety Risks, SafeWork Australia.
5. SafeWork Australia (2016), <http://www.safeworkaustralia.gov.au/sites/swa/model-whs-laws/faqs/pages/faq-ppe> accessed 31st March, 2016.
6. ILS (2008), Position Statement: ILS Risk Assessment Framework, International Lifesaving Federation.
7. HSE (2016), <http://www.hse.gov.uk/toolbox/ppe.htm> accessed 31st March 2016, Health and Safety Executive (UK).

APPROVAL

Policy Statement approved by the ILS Board of Directors on 03/09/2016.