International Life Saving Federation of Europe
Pool Safety Guidelines
Version 2.0 January 2017
Edsbro, Sweden

Preamble / Disclaimer

These Guidelines are provided as part of International Life Saving Federation of Europe's (ILSE) humanitarian work to improve safety. The Guidelines do not replace a formal risk assessment and Normal Operating Plan and adherence to local legislation. ILSE assumes no responsibility for the advice contained in the Guidelines or application thereof. In no event will ILSE be liable for any direct or indirect claims / losses arising from the use of the Guidelines.

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1. Foreword

International Life Saving federation of Europe (ILSE) is aiming to be the leading organization regarding water safety. This document will hopefully help the member organizations to successfully lead their work to a greater level regarding swimming pool safety. World Health Organization, WHO, points out drowning as the leading killing factor around the world and therefor the damage of drowning can be referred to as a main public health issue.

The work on preventing fatal out come of drowning in swimming pools has been more or lees successful in Europe. Even though it can never be taken for granted. Therefor the Drowning Prevention Chain stands out as a role model for this Pool Safety Guideline.

If the receiver of this guideline successfully copes with the factors pointed out in the Drowning Prevention Chain they will probably manage to handle the most of the challenges that might occur in an inside aquatic premises. Pool Safety Guideline stakes out how to inform the visitors regarding a safe behavior in, on and near the pool as well as code of conduct. It underlines the importance of a proper Risk Assessment. Pool Safety Guideline also gives some advice regarding effective supervision and surveillance and points out different user groups and their special needs. ILSE have knowledge and standpoints that is not to be sacrificed. To enforce as safe as possible activity there should always be a proper Risk Assessment to motivate Normal Operational Plan staffing and signage. That is not negotiable.

This is the second version handling the subject. The first version was released in 2005, and has in many ways supported the work to create a safer environment in pool facilities around Europe. However, the years summon on, and new facts and ways to deal with drowning in general and pool safety in specific is at place. This latest version of ILSE Pool Safety Guideline will provide a way to deal with the ongoing work to establish a great experience for the user of a pool facility. This with a good working environment in mind due to encourage the pool lifesaver to perform at her best in order to prevent and to cope with the worst case scenario of an accident in, on or near the pool.

The content in this guideline is put together from already existing guidelines and documents from national agencies and member organizations of the ILSE. This is also the result of the experience and knowledge from the members of the Pool Safety Working-group established on ILSE commission meeting in Prague January 2013.

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Edsbro 150825
Edited September 30 – October 1 2016, Senior Tutors Meeting, The Netherlands
Final version est 170105 Edsbro, Sweden
Editorial measures 170113 Breda Collins and Mikael Olausson ILSE Commission meeting in Copenhagen

2. Abbreviations

WHO	World Health Organization
ILS	International Life Saving federation
ILSE	International Life Saving federation of Europe
PSG	Pool Safety Guideline
DPC	Drowning Prevention Chain
PLG	Pool Lifeguard
RA	Risk Assessment
NOP	Normal Operation Plan
EAP	Emergency Action Plan
CAP	Crisis Action Plan
PRE	Personal Rescue Equipment
ABCDE	Airway, Breathing, Circulation, Disability, Exposure
CPR	Cardiopulmonary Resuscitation
AED	Automated External Defibrillator
DPT	Drowning Prevention Technology

3. Definitions

3.1 Drowning definition

"The process of experiencing respiratory impairment from submersion/ immersion in liquid. The victim may, as a result of this die or survive with or without injury."
Set on World Congress of Drowning 2002

3.2 Water Competence

"the sum of all personal aquatic movements that help prevent drowning, as well as the associated water safety knowledge, attitudes, judgement and behaviours that facilitate safety in, on and around the water"
Set by R.Stallman; in Proceeding of the Lifesaving Conference p.71, 2011

3. 3 Swimming definition

"Ability to fall into the water, get the head under the surface, and after having made it back to the surface, swim 200 meters in deep water, of which 50 meters on the back."
Set by the Nordic countries 1996

3.4 The Drowning Prevention Chain

Set by the ILS Rescue and Education Committees
Four identified factors that lead to drowning:

1. Lack of knowledge, disregard or misjudgement of the hazard
2. Uninformed, unprotected or unrestricted access to the hazard
3. Lack of supervision or surveillance
4. An inability to cope once in difficulty

Edsbro 150825
Edited September 30 – October 1 2016, Senior Tutors Meeting, The Netherlands
Final version est 170105 Edsbro, Sweden
Editorial measures 170113 Breda Collins and Mikael Olausson ILSE Commission meeting in Copenhagen

The main strategies to prevent the factors above:
a) Education and information
b) Denial of access, improvement of infrastructure and/ or provision of warnings
c) Provision of supervision
d) Acquisition of survival skills

3.5 Drowning Chain of Survival

Summary of chain links
1. Prevent Drowning
   Stay within arms reach of children
   Swim in waters guarded by lifeguards
2. Recognize distress
   Learn subtle signs of drowning
   Call for help
3. Provide flotation
   Avoid entering the water unless trained to do so
   Throw floating object to victim
4. Remove from water
   Attempt to instruct victim on returning to shore
   Reach, throw, row to victim
5. Provide care as needed
   If not breathing, start CPR including ventilations
   Consider oxygen and AED if available

   Seek medical attention if any symptoms present
Set by: Szpilman D, et al. Creating a drowning chain of survival. Resuscitation (2014)

3.6 Systematic Safety Work
A safe workplace and a safe facility for the visitor don't happen by chance. It requires a systematic approach to identify and manage hazards and risks. This approach ensures that the highest level of protection is in place for people at work and visitors. To work with the PSG is to take on systematic way to deal with the specific environment that is the fact with a bathing facility.

3.7 Pool Lifeguard - PLG
The aim of the work for the PLG is to provide adequate surveillance for the users by:
- Prevent a first aid situation in, on or near the pool
- Recognize a user in distress
- Raise the alarm

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- Remove a user from danger
- Provide adequate first aid treatment

3.8 User groups

With consideration to local byelaws and reasonable costs the facility should have access for people with disabilities. The operator must identify specific user groups that are at higher risk in the environment of a swimming pool. Different controls must be created for these identified groups of users. Below follows an example are some of vulnerable user groups.

3.8.1 Children under six years

- Parent or guardian should always participate in the water with the child. Exeption taken to regulated swim courses with trained teachers etc.
- Parent or guardian should always keep the infant or toddler within arms length.
- Provision of barriers.
- Familiarise children with the water.
- Parent and guardians should learn resuscitation and self water rescue skills.

3.8.2 Children seven to 12 years

- Parent or guardian should always participate in the water if the child is unable to swim according to the swimming definition. Exeption taken to regulated swim courses with trained teachers etc.
- Learn resuscitation (Resuscitate a mate)
- Learn to swim and survive
- Awareness programs
- Junior Lifesaver clubs

3.8.3 Youths 13 to 18 years

- Learn resuscitation (Resuscitate a mate)
- Learn to swim and survive
- Learn water safety competence and skills
- Awareness programs

3.8.4 Weak swimmers

- Close surveillance
- Inform of a safe way to use the facility and recommend shallow water, not deeper than 1,35.
- Inform of what to do in case of fatigue and/or panic
- Inform of swimming school, adult as well as children

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- Awareness programs

3.8.5 Lone swimmers

- Close surveillance
- Inform the visitor of the inappropriate of swimming alone
- Inform of swimming school, adult as well as children
- Awareness programs

3.8.6 Visitors with known medical conditions

- Close surveillance
- Inform of a safe way to use the facility and recommend shallow water, not deeper than 1,35m.
- Inform of what to do in case of fatigue and/or panic.
- If possible try to find out if there is some special diagnosis, e.g. known heart problem, history of stroke, diabetes, epilepsy etc.
- Inform of swimming school, adult as well as children.
- Awareness programs.

3.8.7 Visitors with special needs

- Close surveillance
- Inform of a safe way to use the facility and recommend shallow water, not deeper than 1,35m.
- Try to find out if there is some special features that could ease there stay and if they need any special help getting in or out of the pool.
- Inform of what to do in case of fatigue and/or panic.
- If possible try to find out if there is some special diagnosis, e.g. known heart problem, history of stroke, diabetes, epilepsy etc.
- Inform of swimming school, adult as well as children.
- Awareness programs.

3.8.8 Visitor under influence of alcohol or drugs

There must be clear and explicit information of the inappropriateness of use of alcohol or drugs in conjunction with activities in, on or near water.

3.9 Pool Classification

There is a great deal of different kind of purposes why there is a pool facility in the first place. Due to the different perspective there also is a great deal of different kind of pool designs.

Below PSG suggest some of the pool categories, the main objectives and a recommended basic user ability.

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Pool	Objective	User ability
Public pools	Training, health, teaching	No ability to full ability
Recreational	Bathing, fun, health	No ability to full ability
SPA/ Thermal	Relaxation, health, medical	No ability to full ability combined with clear age limit and code conduct regulation
Private pools	All above but with a clear regulation of who is the owner.	No ability to full ability combined with clear age limit and code of conduct regulation.
Training	Aquatic sports	Full ability or under trainers command.
Action	Adrenalin impact, joy, fun	Full ability combined with clear age and code of conduct regulation
Adventure/ Experience	Adrenalin impact, joy, fun	Full ability combined with clear age limit and code of conduct regulation

4. Division of Responsibility
4.1 Owner
The facility owners are responsible to provide a "safe house" to enable the operator provide a safe activity. The owner and operator could be the same legal person, but it could also be different legal persons. Communication in between the different parts is vital.

4.2 Operator
The responsibility for a safe service lies with the operator. This responsibility includes providing a clear safety information and to conduct systematic safety work in order to prevent injuries of visitors and staff.

The operator are responsible to present an organization chart that clarify who is in charged on the different levels with description of what is included in the various areas of responsibility. The operator should also point out the safety measurements that have been established. The management is responsible to inform the owner according to the RA if there is any hazards that interfere on the service provided to the visitors. This also is a part of the systematic safety work that has to be done in order of bylaws.

4.3 Visitors
Parents and other adults who accompany children are required to keep the children under supervision during their whole stay in the facility and ensure that they receive the help they need with regard to age, development and ability.

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Individuals should behave in a way that does not put themselves or others at risk and comply with all the rules of the facility.

NOTE!
In connection with swimming lessons conducted by the facility or other activities organized by the service provider, there may occur other safety requirements regarding parent, guardian and adult responsibilities.

5. Safety Policy

Every service provider of a swimming facility should establish a safety policy adapted to its own activities and goals. The policy should stake out:
- The goal of the safety management
- How the operator shall work to provide a safe and healthy stay for the visitors
- An balanced and reasonable economic responsibility
- A description of the safety organization

6. Risk Assessment - RA

All pool sites must ensure that a sufficient Risk Assessment (RA) is conducted. The purpose of the RA is to provide the operator with facts to increase the safety for the visitor. The aim with the RA is to identify and chart the hazards that may occur and measure the impact of the hazards. With the new knowledge in mind action must take place to reduce the risk or even better to eliminate the hazards. The RA is recommended to take place ones a year or when:
- Changes in the bylaws and regulations are made
- Major changes regarding scheduling of the staff
- Major changes are made regarding the business
- Major changes in the construction
- A accident of greater impact has occurred

The following steps are recommended to be included in the RA:
- Assessment Summary
- Pre Site Visit Information
- Description of Areas Assessed
- Public Access to Facility
- Emergency Services Access
- Zoning
- Staff Experience and Qualifications
- Supervision arrangements of the facility features
- Rescue and Public Safety Equipment
- Signs and Notes
- Information board

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- Other Hazards and Risks
- Facility Map
- Pictures
- Lists of Contacts

7. Organization

The operator are forced and earned to have a written plan for there organization. How the management decides to organize the roll of staff is strongly linked with the outcome from the RA.

7.1 General

A scheme that shows the line of authority regarding community- or the business administration should be clarified as well for the staff serving the facility as well for the visitors.

7.2 Local

The management of the premises should also be outlined in an organization chart. This will serve the staff to see there role in the organization in order to underline the importance of the different duties is depending on each other performance. The chart will also point out line of authority and on which level the responsibilities lay.

8. Staffing

When the public has access to the site and also when swimming lessons are in progress, the site shall be managed by at least one PLG. The PLG should wear special clothing so that visitors easily can recognize them in case of emergency.

The table below shows the minimum recommended numbers of PLG. The recommendations cannot be isolated, it must be put together with the results from the RA.

Pool Area m2	Min.No	Min.No Busy periods
0-170	1	2
212	1	2
250	1	2
312	2	2
416	2	3
625	2	4
1250	4	6

NOTE!
If continuous supervision of swimmers is not in place, the reason for this must be motivated with support from the RA. In these circumstances user about to visit the site, prior to admission, must be informed that continuous supervision in the pool area are not in place.

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Visitors should also be informed where to find PLG and how to raise the alarm in case of an emergency.

9. Competence Requirements for staff

The minimum level of education for staff with working instructions to supervise the pool area should be comparative to the standard of an ILSE Pool Lifesaver level compared to EQF 3. Otherwise the theoretical competence requirements should be equivalent to the knowledge of first aid according to principals of:

- Prevent a first aid situation in, on or near the pool
- Recognize a user in distress
- Raise the alarm
- Remove a user from danger
- Documented skills of water lifesaving. For instance in-water resuscitation.
- The first aid chain of ABCDE
- CPR with AED for as well adults as children
- The most common cases of illness

The practical requirements should be equivalent regarding to handle a lifesaving action in, on or near the water. Great importance must be taken regarding the configuration of the facility and the results of the RA. The operator is responsible to ensure that the PLG is able to train and develop the lifesaving skills. The PLG should be tested at least twice a year or according to what the RA stakes out. The minimum age of an employed PLG shall be established to the current byelaws of the working environment.

Furthermore it is recommended that the whole staff of the site practice first aid and CPR at least once a year and is informed of the latest result of the RA. The first aid information given to the staff should include the handle of an emergency situation according to the principals of ABCDE and the most common case of illness and accidents.

NOTE!
1) If the PLG is between 16 and 18 years of age they should be partnered with a PLG above the age of 18.

2) See Risk Assessment document, 3.10 Staff Experience and Qualifications.

10. Routines
10.1 Normal Operation plan – NOP

There should be a documented NOP, which details the working routine, appropriate tasks and responsibilities for the pool staff. The NOP must be documented and reviewed at least once a year. At least the following should be included:

- An Organization chart that stakes out the line of authority, individual responsibilities and allocation of responsibilities of various members of the staff.

- A description of the pool and the pool area, such as; dimensions, depths, special features, access, first aid stations etc.
- The most coming hazards and risk that the RA stake out and how to deal with them.
- Sharp routines and instructions when to turn from the NOP to the EAP.
- Control of admission to the pool. Should at least include; access control at the reception, specific regulations regarding user groups with permission to enter, age policy regarding minimum age to enter the pool without parent, security arrangements to secure unauthorized access when the pool is closed.
- The maximum number of users at one time. This according to the safety requirement to the visitor as well to the water treatment system of the plant.
- Sharp routines and instructions what to do in case of over load regarding to the maximum number of users at one time.
- The most vulnerable target groups, especially children 0-6 years.
- PLG duties and responsibilities.
- PLG, PRE (see the section 14 Rescue Equipment)
- Surveillance and supervision policy
- A routine how to ensure a sufficient communication line between facility staff and pool staff.
- Management of the pool when being used by specialist groups for example; clubs and users with special needs.
- Use of pool equipment
- Use of first aid equipment and where it is located
- Facility staff training according to the RA.
- Management of special features and event.
- Conditions of hire.
- Actions to be taken in case of non-conformity.

10.2 Emergency Action Plan - EAP

When operating with general public and a large scale of different user groups it is more or less a question of time before an accident will occur. When so happens, an adequately and detailed EAP must enter in force. The role of an existing EAP cannot be overestimated as a support for the PLG and operator. As well in case of emergency, as well as the knowledge of its existence and there for ensure a good psychosocial work environment. The EAP must be documented and reviewed at least once a year. At least the following should be included:

- When to raise the alarm
- A chart over the most important functions to handle an emergency. Such as:
  - A first aid situation
  - Start an evacuation

- Sharp and simple instructions of the most urgent actions. Step by step.

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- When to turn into CAP
- When to go back to NOP

The EAP should at least detail instructions and actions regarding the following incidents:
- Drowning
- Heart failure to a user
- Overcrowding
- Outbreak of fire
- Faecal contamination of the pool water
- Emission of gases
- Chemical spillages
- Missing person
- Allegation of child or vulnerable adult abuse
- Disorderly behavior
- Structure failure
- Bomb threat
- Lightning failure
- Breaches of the pool´s admission policies

10.3 Crisis Action Plan - CAP

A Crisis Action Plan, CAP, may facilitate the operator and staff to resume their normal work. The CAP is actioned as soon as the staff or operator asks for it. If there is a CAP in use, it must be documented and reviewed at least once a year. Below is an example of what the CAP may contain.

A description of a Crisis Organization
- Clarify which incidents could qualify as a crisis for the specific site and management.
- Clarify the most vital functions in the crisis group.
  - Contact with the site management
  - Internal information to staff. E.g. latest news on intra web.
  - External information to user groups. E.g. website.
  - Create press releases.
  - Secretary.
  - Contact with media
- An Organization chart that stakes out the line of authority and who the members are in the crisis group.
- Each of the functions should have a clear instructions of what to do as a member of the crisis group:
  - Before the crisis
  - During the crisis
  - After the crisis
- Make sure there is an updated list with name and number to the persons in the crisis group.

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Edited September 30 – October 1 2016, Senior Tutors Meeting, The Netherlands
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Editorial measures 170113 Breda Collins and Mikael Olausson ILSE Commission meeting in Copenhagen

- Point out clear and sharp instructions of what actions to take place for each of the different functions.
    - o Has the emergency number been activated
    - o Get a picture of the situation. How many are affected of the accident Visitors and/ or staff.
    - o Make sure that injured been taken cared of
    - o Establish corporation with rescue service, ambulance and police.
- Vital functions and name and number to the persons in charge.
- What resources are available in the organization?
- Do we need to take contact with other partners or agencies? Public health care, Red Cross, the church etc.

See Risk Assessment document, 2 Historical data.

11. Surveillance and supervision

PLG should be actively involved in the supervision of all users. The surveillance and supervision routine is a direct product of the RA. Special awareness should be taken of the following user groups:

- Children under six years
- Children seven to 12 years
- Youths 13 to 18 years
- Weak swimmers
- Lone swimmers
- Visitors with known medical conditions
- Visitors with special needs
- Visitor under influence of alcohol or drugs

11.1 Surveillance of Special Attractions and Activities

If any out the following activities or attractions is in place must there be a surveillance routine, or if the RA states otherwise:

- Water depth greater than an arm length for children and youths under 12 years.
- Slides
- Waves
- Rivers, Rapids and Currents
- Divingboards
- Multi use of pool and user groups
- When crowded conditions is expected

If the RA indicates that there is any attraction or activity that entails a certain ability to exercise in a safe manner, there should be special instructions in conjunction with start point. The information could include the following:

- Ability requierments

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- Age limits
- Height limits
- Water depths in landing zone.
- If there is any rapids
- If there is any step slopes that lead to high speed and turbulent trip.
- A gradient so that the visitor can compare to other attractions.

See Risk Assessment document, 3.11 Supervision arrangements of the facility.

12. Signage

The operator is obliged to inform the visitor of what is to be expected while entering the facility and how to use the pools, attractions and activities. The information put out to the visitor is a direct consequence of the outcome from the RA and the established policy from the-operator regarding what kind of environment that will meet the visitor.

12.1 Information

Minimum information should state out the following:

- A recommended or definite minimum age for visit the facility alone. 12 years is recommended.
- Children under six years of age should never be left alone further than a length of an arm.
- Make the visitor aware if there is any special features that may occur. E.g. Water depths, Deep and/ or shallow ends.
- Opening hours
- If there is opening hours where the pool areas is not under surveillance
- Where to find PLG
- Where to find emergency communication to receptionist etc.
- Where to find first aid and rescue equipment
- Where to find electronical means to raise the alarm

A suggested chain of information could look something like this:

- Website
- Information board outside the facility
- Information board at the entrance
- Information sheets for self distribution at the entrance
- Verbal information while paying the entrance fee
- Before entering the changing rooms
- Before entering the showers and saunas
- Before entering the pool areas
- At the beginning of an attraction; slide, rapid etc.

12.2 Code of Conduct

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As well as clear information based on hard facts, it is of great importance to declare what kind of culture and behavior the management and staff will create togheter with the visitor. The regulations described as "Code of Conduct" will support the staff as well as the visitor to establish a pleasent and safe atmosphere. The "Code of Conduct" can include the following:

- Hygiene programmes
- Use of changing rooms
- How to use smartphones, eReader, cameras
- Use of glass bottles
- Where to eat own brought snacks and food
- Use of play and fun equipment, e.g. mats, mattresses, float toys, balls etc.
- Use of fins, snorkels, masks etc
- Guidelines for how different user groups can utilize a wide range of activities

12.3 Prohibition

Indicate activities which are not allowed or show areas where a particular activity will present a danger. Prohibition signs should be on a white circle with red edging and contain a black pictogram indicating the danger.

12.4 Warning

Indicate where there may be a danger if caution is not exercised. This type of sign should be on a yellow triangle with black edging and a black pictogram.

12.5 Mandatory

Indicate procedures that must be followed in order to ensure customer safety and satisfaction. These should be on a blue circle with a white edging and white pictogram.

NOTE!
See Risk Assessment document, 3.13 Signs and Notices.

13. Incident report

The incident report is conducted when ever a visitor has been involved in an accident that has occupied the PLG for a longer time. Once a proper RA been done, and there has not been any major incidents or changes regarding the facility or the scheduled activities, the incident report can be useful to review in order to evaluate the acitivities that taken place during the year.

The incident report should at least stake out the following:

- Year, month, date and time for the accident
- Name and age of the injured person, if under 18 gurdians or parents name aswell
- Where in the facility the incident occured
- What has happen

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- Apparent injuries, was ambulance requierd
- Treatment given e.g.; in-water resuscitation, CPR, AED, first aid etc
- Who has taken care of the injured; staff, parent, teacher, instructor, trainer etc
- Actions suggested to prevent similar accidents in the future

The report is signed and sent over to the operator and head of administration.

14. Rescue Equipment

The RA should stake out if and what kind of water rescue equipment is required to ease the work for the PLG. It is also a good idea to identify if there is any equipment that could be in use for the visitors during there stay.

At least the following should be at place:
- Elongated arm; reach poles, throw bags
- Lifebouys
- Torpedo buoys or rescue tubes
- First aid bag
- Automatic External Defibrillator, AED

Bathing facilities, where the RA indicate such needs, should also have the following equipment:
- Cervicval collar
- Stabilization stretcher/ Spinal Board
- Lifejacket at disposal for the visitor

14.1 First Aid Equipment

The most common accident that occur take place in other parts of the facility than in the pool area. With that i mind it's a good idea to be prepared. Below is suggestion of what kind of material a first aid bag can hold:
- Bloodstoppers; plasters, torniquet, stripes
- Exam gloves
- Pocketmask for respiratory first aid
- Cool pack
- Scissors
- Pincette
- Towels and blankets
- Portable oxygen

14.2 Facility Rescue Equipment

In addition to the equipment listed above, the facility also must be installed with a proper speaker system and other means in order to raise the alarm i case of:
- Fire
- Drowning
- Structural defects

There should also be a partitioned Emergency room.

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14.3 Personal Rescue Equipment - PRE

Proposal on the staff's personal rescue equipment are presented below.
Established PRE shall be entered in the NOP.

- Uniform dress - in order to easily be recognaized
- Belt bag - Containing First aid equipment, exam gloves, pocketmask for respiratory first aid, information sheet, keys etc.
- Communication radios/ walkie-talkies – the PLS should summon assistance immediately from other PLG, reception and/or the site manager.
- Whistle – this could be the last way out to get the attention from the bathers.

NOTE!
1) *Something that is not so heavy and awkward to carry around is a frequently practiced knowledge.*
2) *See Risk Assessment document, 3.12 Rescue and Public equipment..*

15. Drowning Prevention Technology - DPT

There may be a number of alarms for different types of emergencies, eg fire, plant failure, drowning, etc. Each alarm should be distinctive and it may help in buildings with a public address system to have recorded messages alerting staff to a particular type of emergency. All alarms should be tested daily and there should be a documentation of equipment and alarm checks. If Drowning Prevention Technology can reduce the likelihood of drowning it could be a smart complement to other prevention actions. Existing technologies range from bather-activated wristband alarms to cameras that detect `drowning movement' patterns. The development and improvement of the existing technology behind the alarms are more or less sophisticated software with imaging algorithms.

NOTE!
A DPT can never do the work of a qualified PLG. This must always be seen as a complement to the NOP.

16. References

World Health Organization, Global report on drowning 2014

Swimming pool Safety Guidelines, Irish Water Safety (IWS)pbl 2007

Management of public swimming pools, The Institute of Sport and Recreation

Management (ISRM) pbl 2004

European Standard – SS-EN 15288-2:2008

A Safer Swimming pool, Swedish Lifesaving Society (SLS) pbl 2013

Guideline for Swimming Pools, Consumers Agency of Sweden pbl 2013

Guide to an increased Water Safety, Swedish Civil Contingencies Agency pbl 2012

ILS Drowning Prevention Guide pbl 2011

The Health and Safety Executive Publication `Managing Health and Safety in Swimming

Pools' (MHSISP) HSG179 (Third edition, published 2003)

Truhlár A. European Resuscitation Council Guidelines for Resuscitation 2015 Section 4.

Cardiac arrest in special circumstances. Resuscitation 95 (2015) 148–201

Immersion, near-drowning and drowning, F.St C. Golden, M.J Tipton and R.C. Scott 97

Drowning; David Spilzman, M.D., Joost J.L.M. Bierens, M.D., Ph.D., Anthony J. Handley,

M.D., and James P. Orlowski, M.D.; The New England Journal of Medicine may31, 2012