

GUIDELINES FOR WATER SAFETY IN SCHOOLS, HOTELS AND OTHER PUBLIC RECREATIONAL SWIMMING POOLS

**BY
KENYA LIFESAVING FEDERATION**

**GUIDELINES FOR WATER SAFETY IN SCHOOLS, HOTELS
AND OTHER PUBLIC RECREATIONAL SWIMMING POOLS.**

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

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The federation works to prevent drowning and water-related injury through its training programs. Lifesaving training, Water Safety awareness public education initiatives, water-incident research, aquatic safety management services, and lifesaving sport.

The federation sets the standard and guidelines for aquatic safety in Kenya and certifies Kenya's National Lifeguards.

The Federation represents Kenya internationally as an active member of the royal Life Saving society- commonwealth and the International Life Saving Federation. The Federation is the Kenyan governing body for lifesaving sport - a sport recognized by the International Olympic Committee and the Commonwealth Games Federation.

The federation conducted a research on health and safety standards of aquatic facilities in Nairobi, Nakuru and Kiambu counties and the bases of this research cumulated to publishing of this book as one of the recommendation of the findings as shown in the abstract.

COMPLIED BY

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COMMONWEALTH

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KENYA LIFESAVING FEDERATION

The conception of the Lifesaving Association dates back to 1991 when Lifeguards at the YMCA held a meeting at the Nairobi Central YMCA Branch under the guidance of Job Kania and Teddy Wamunyu, then, the Lifesaving Instructors of the YMCA Lifesaving Programme. Association (KLLA) dates back to 1996 as an Aquatic Committee of KSCA. Later on, it drafted its own independent constitution. On 12th January 2001, at the Annual General Meeting of the KSCA, Job Kania, then the Chairman, passed a resolution to dissolve the Aquatic Committee headed by Haider Ali and transformed the same committee to KENYA Lifesaving and Lifeguards Association-KLLA. KLLA filed its Constitution with the Registrar of Society the office Department o Registrar- General Government Of Kenya in 2003. The pioneer officials were: - Job Kania as Patron, Albert Oketch as Chairman, Anthony Muchiri as Secretary and Steve Kiarie as Treasurer. In April 2004 Kenya Lifesaving and Lifeguards Association was registered with the Registrar of Societies, Department of the Registrar – General, Government of Kenya.

KLLA applied for full membership with the International Lifesaving Federation (ILS) in 2005 and on September 2006 KLLA was affiliated to ILS as a full member of the world governing body for the lifesaving and water safety. On 5 January 2008 KLF General Assembly ratified and approved the adoption of the ILS water safety/lifesaving & swimming education guidelines for certification and complied KLF national water safety certification guidelines that will be implemented in the country and applied for certification accreditation and endorsement by the ILS as to bear the ILS Logo in all of KLF certificates to make them international recognized for better job market. KLF is very active in all ILS activities such the world lifesaving championship, World Water Safety conferences plus many other world activities. On 25th April 2008 the Registrar of Society accepted the change of the Name and was issued with a new Registration Certificate Number 22980 As Kenya Lifesaving Federation File No. SOC/40425 by the REGISTRAR OF SOCIETIES, Department of the Registrar– General, Government of Kenya. In June 2008 KLF held its first inaugural National Lifesaving Championship in Kenya at the St. Austin’s Academy. In 2008 was recognized as the official branch of the Royal Lifesaving Society by the Commonwealth RLSS Headquarter In United Kingdom and has remains a full paid up member of the ROYAL LIFESAVING SOCIETY, KLF issue RLSS awards such as BRONZE MEDALLION, participate in all the Commonwealth lifesaving championships, conference and other RLSS activities.

In 2008 KLF entered into a strategic partnership agreement with The Sports Stadia Management Board (SSMB) in lifesaving training, use of facilities at the sports stadia Kasarani. IN 30

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September 2008 KLF seek approval to train as a training provider by the Directorate of Industrial Training (dit) Ministry Of Labour And Human Resource Development. In 16 January 2009 KLF was official affiliated to the Kenya National Sports Council As a full member of the National sports body hence giving KLF official recognition by the Ministry Of Sports. KLF has continued to run lifesaving championships in Kenya.

On 23 February 2009 KLF acknowledged as a responder by the NATIONAL DISASTER Operation Center. Office Of The President, Provincial Administration And Internal Security. On 1 April 2009 KLF was official affiliated to The International Federation of Swimming Teachers Association (IFSTA) On 1 May 2009 KLF lease an office at Moi International Sports Center-kasarani AQUATIC making the office KLF National Headquarters. In July 2009 KLF started the auditing and inspection of public swimming pools facilities with approval of Local Government Authority-Nairobi City Council and the NATIONAL

Environmental Management Authority (NEMA) Ministry of Environment and National Resources. In October 2010 KLF makes its first entrances in the world lifesaving championships in

Alexandria, Egypt, Rescue 2010. In January 2011 KLF begins the awards for RLSS BRONZE MEDALLION and RLSS LIFESAVING RESEARCH DIPLOMAS. In August 2011 KLF run a joint lifesaving refresher course with the University of Nairobi-Department of Games & Sports. In April 2012 KLF held the first ever National Beach Lifesaving Competitions at the Nyali beach Mombasa. November 2012 KLF had four athletes to the Rescue 2012 in Australia.

INTRODUCTION

It is imperative that the reader of these guidelines understands and recognizes the uniqueness of each aquatic setting. This must include an appreciation of the different size of the establishment, nature of the establishment (resort style hotel compared to budget School or camping ground), different user groups and their expectations of the facility and aquatic activities to be undertaken, and the application of the guidelines to these various settings.

It can not be stressed enough that supervision should be applied to the aquatic setting at all times, and all users of the school, Hotel, School, Camping or recreational aquatic setting are recommended to have a supervisor with them at all times, however this at the discretion of the user. It is also recommended that the School, Hotel, School, recreational Ground management

Additionally the KLF provide the Guidelines for Water Safety in Kenya Water Developments. These guidelines are relevant for purpose-built water environments, near or around areas which the general public may frequent, and are inclusive of residential developments in both urban and rural settings, commercial developments such as shopping precincts and hospitality venues, residential and commercial developments and public spaces, School, Hotel, School, Camping Grounds which

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include these types of open water developments as part of their property should refer to the Guidelines for Water Safety in Urban Water Developments information and guidelines for the management of the risk these environments impose, and the responsibilities of management to control such risks.

The KLF have also developed the Guidelines for Water Safety - Inland Water Bodies, relevant for inland water environments such as lakes, rivers, farmland dams and water supplies, and irrigation systems, which may or may not be intended for swimming / human interaction. These guidelines have been developed to advise councils, management, farmer's and their families and community groups who work and interact within these types of environments about potential risks associated with these environments, and how they can be enjoyed safely. The Aquatic and Recreational Signage Style Manual has been designed to assist local councils, government departments, and committees of management, responsible bodies and landowners throughout Kenya, to have access to a full and easily accessible set of water safety signs and symbols for pools, beaches and inland waterways. Along with these Guidelines the KLF also provides the Public aquatic facility safety standards Designed to aid the expansion, management and advancement of the respective user groups within these aquatic environments.

SCOPE OF THE GUIDELINES

The Guidelines for Water Safety - School, Hotel, School, Camping and other recreational centers are relevant for any swimming pool and spa facility located within a school, hotel, School camping or recreational ground environment.

These guidelines are directed for:

- design and works should adhere to these guidelines. Swimming pool and facility operators.
- Maintenance personnel.
- Managerial personnel.
- Industry bodies.
- Staff.

These guidelines have been created to hold relevant advice for designers, developers, government authorities, tourism industry personnel, governing bodies and school, hotel, School, camping and other recreational ground staff and cliental. These guidelines should be integral to the design, operation and long-term success of swimming pools and spas within the hotel, School, camping and other recreational ground environment. These guidelines offer pool operators significant and detailed information on the management of aquatic facilities, while providing a secure, user-friendly aquatic environment for all hotel, School, camping and other recreational ground guests. The safety considerations tabled within this document do not encompass residential swimming pools and spas that are covered by existing state regulations and safety programs. Please refer to the Building Commission and the Royal Life Saving Society for further information.

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RETROSPECTIVITY

In regard to the implementation of these guidelines it must be recognized that some existing school, hotel, School, camping ground swimming pool and spa facilities may not meet the best practice recommendations detailed in these guidelines in relation to facility design. Where practicable, it is recommended that when these existing facilities are redeveloped, renovated, or undergo major maintenance works, the new

- | | | |
|----|----------------|--|
| 1. | TITLE | GENERAL SUPERVISION |
| 2. | PURPOSE | To establish minimum guidelines of the supervision of bathers at hotels and camping ground swimming pools. |

GS GUIDELINES

GS.1 Qualifications of Supervisory Personnel

It is recommended that the School, hotel or camping ground management undertake a risk management analysis in regard to the supervisory requirements for its aquatic facilities. This assessment should include the following areas:

- i. Size of pool.
- ii. Shape of pool.
- iii. Lines of sight in and around the pool.
- iv. Number of patrons using pool.
- v. Swimming ability of patrons using pools.
- vi. Behaviour of patrons using pools.

It is recommended that any person required to operate in a paid supervisory role should be trained and qualified to a minimum level of a KLF Senior National certified lifeguard. This qualification allows the personnel to develop the knowledge, judgment, techniques and physical ability required to carry out safe water rescues.

It is recommended that all persons operating in a paid supervisory role should hold a current cardio pulmonary resuscitation (CPR) qualification and a First Aid qualification from a recognized provider such as KLF Aquatic first aid/life support, RED CROSS and St. John Ambulance.

GS.2 Supervision

The responsible supervisory person (paid or voluntary) should be of the minimum age of 18 years old, and must maintain concentrated observation of the pool and pool users in order to anticipate problems and to identify and respond quickly to any emergency. Management may increase this age depending on their circumstances in conjunction with a Risk Management Assessment.

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Pools and immediate surrounds must be supervised to ensure that:

- i. There is no running.
- ii. There is no pushing.
- iii. There is no diving or jumping into shallow water.
- iv. There is no abusive or offensive behavior.

GS.3 Emergency Action Plan (EAP)

An emergency support, system should be in place with an effective means of communication, which may include:

- i. An emergency panic button that can be used to set off an alarm.
- ii. A direct telephone link to an appropriate emergency service e.g. Ambulance or Police or the hotel reception.

- iii. It is essential that the following factors are provided:
- iv. An emergency plan or procedure that relates to the specific pool,
- v. An emergency support system should be on display and known to users.
- vi. Information on First Aid, Cardio Pulmonary Resuscitation, and Rescue Breathing should be clearly displayed at the pool.
- vii. Advisory signs relating to appropriate behaviour should be clearly visible to users. (Refer Section 3. Below)
(Refer Guideline HMC3 Emergency Action Plan)
- v. Users should be made familiar with emergency procedures.
 - vi. Safety equipment should be available on site, e.g. rope, reach pole, resuscitation pocket mask (Refer Guideline HMC4 Rescue Equipment and Guideline HMC6 Content of First Aid Kit and/or Room)
- vii. Signage
Signage outlining appropriate behaviour and other relevant information should be in simple, positive, easily understood language and using symbols where possible.
(Refer Life Saving Victoria, (2004). Aquatic and Recreational Signage Style Guide. Second Edition. January 2004)
- viii. Line of Sight
Paid or volunteer supervisors should be in a position to maintain supervision of the water at all times. It is recognized that supervisors need to be mobile and a clear line of sight is a significant requirement.
- ix. Play equipment
Play equipment, e.g. small inflatable's and floating mats and rafts may require an increased level of supervision from parents, guardians or paid lifeguards (where applicable).

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TITTLE AQUATIC RISK MANAGEMENT

PURPOSE

To provide guidance for the successful application of risk management principles in the safe operation of aquatic facilities.

DEFINITION

Risk Management is the process of identifying, assessing and controlling risks to people, to an organization, or to an asset. Formalised Risk Management is becoming an essential tool in the aquatics industry and is a requirement under various governmental legislation such as the Victorian Dangerous Goods (Storage and Handling) Regulations 2000 and the National Occupational Health and Safety Commission - National Standard - Storage and Handling of Workplace Dangerous Goods.

GUIDELINES-ARM

ARM 1. It is recommended that the hotel, School, camping or other recreational ground management undergo a structured Risk Management analysis of their facility usage in relation to procedures and policies for all Supervision Requirements of patrons in the facility. (Refer to Appendix B Risk Management and Section 4: Supervision)

ARM 2. It is recommended that all aquatic facilities undergo a structured Risk Management analysis of their storage, handling methods and procedures for all Dangerous Goods used or stored on the premises. (Refer to Appendix B Risk Management)

ARM 3. It is recommended that all aquatic facilities undergo a structured Risk Management analysis of their storage, handling methods and procedures for all Hazardous Substances used or stored on the premises. (Refer to Appendix B Risk Management)

TITTLE EMERGENCY ACTION PLAN

PURPOSE

To establish guidelines on the minimum safety content of an emergency action plan.

DEFINITION

An emergency action plan (EAP) is a set of documented and well-rehearsed procedures that are initiated on the occurrence of a significant safety incident. An EAP is designed to offer guidance, direction and procedures to allow a swift effective response to an emergency. While there are a variety of definitions behind what constitutes an emergency, for the purpose of this guideline, an emergency is a sudden, unexpected event requiring immediate action due to potential threat to health and safety, the environment, and/or property.

GUIDELINE EAP

EAP 1. The minimum safety content of an emergency action plan should include details on the following:

EAP 2. Routine aquatic emergency procedures:

- i. Minor incident,
- ii. Overcrowding.

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- iii. Disorderly Behaviour.
- iv. Lack of water clarity.
- v. Chemical irregularities.

EAP 3. Major incidents:

Incidents considered to be life threatening for any and all individuals including, but not limited to

- i. Suspected drowning.
- ii. Suspected spinal injury.
- iii. Cardiac incident.
- iv. Chemical spill or leak.

EAP 4. Response:

- i. Minor incident.
- ii. Major incident.
- iii. Teamwork.
- iv. Communication.
- v. Equipment.
- vi. First Aid.
- vii. Reporting.

EAP 5. Rescue and First Aid:

- i. List of Equipment.
- ii. Location of Equipment.

EAP 6. Emergency Services:

- i. List of relevant emergency service phone numbers for the various authorities and responsible persons to be notified in the event of an emergency.
- ii. Contact details for each service,
- iii. The address of the premises.
- iv. A plan of the premises.
- v. Call out procedure.

EAP 7. Evacuation:

- i. Fire.
- ii. Chemical spill or leak.
- iii. Bomb threat.
- iv. Power failure (Blackout).
- v. Structural failure.
- vi. Use of outdoor pools during electrical storms, e.g. Lightning.
(Refer HMC19 Precautions during Thunderstorms)

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EAP 8. Critical incident Stress CIS) debriefing/Post Trauma Counseling

- i. Procedures for initiation of CIS debriefing.
- ii. Contact name and telephone number for at least 2 people who may be contacted in the event of an incident.

EAP 9. Practicing Emergency Procedures:

- i. Frequency.
- i. Training.
- ii. Simulation,
- iii. Public alert.

EAP 10. Plan of the Premises

Due to the varied nature of body corporate swimming pool and spa locations the purpose of the plan of the premises is to identify the location of the swimming pool or spa to aid emergency services personnel in locating the area in question.

The following information may be relevant:

- i. Main entrance and other entry points to the premises.
- ii. The location of ail buildings, amenities, structures and internal roadways on the premises and their designed uses.
- iii. Areas of public access adjacent to the site and parking (if any).
- iv. Public street names adjacent to the premises and evacuation routes.

EAP 11. The Emergency Action Plan should be practiced at least annually so that the relevant pool user groups are fully conversant with the plan and the equipment. Results of the practice of the Emergency Action Plan should be analysed by the Body Corporate with a view to continuous improvement. (Refer AS3745-2002: Emergency control organization and procedures for buildings, structures and workplaces)

EAP 12. The Emergency Action Plan should be made readily available to all staff and guests of the hotel, School, camping or other recreational ground, and any other persons who use the pool. This may be achieved by providing all guests with a copy upon occupancy.

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1. TITLE RESCUE EQUIPMENT

2. PURPOSE

To provide advice regarding the nature of rescue equipment to be available at a hotel, School, camping or other recreational ground swimming pool or spa.

3. GUIDELINES-RE

RE 1-All swimming pools and spas should provide rescue equipment for use in an emergency, based upon a risk management assessment relative to the size, and user group demands of the facility. (Refer Appendix B Risk Management)

RE 2-The minimum recommended equipment provided should be:

- i. 4 x Reach poles.
- ii. 4 x Throw ropes or throw bags.
- iii. 4 x Floatation Devices (kickboards, rescue tubes, etc).

RE 3-Additional equipment needs should be determined following a thorough Risk Assessment process (see Appendix B: Risk Management), and may include some or all of the following:

- i. Lifejackets.
- ii. Spine board.
- iii. Self contained breathing apparatus when using chlorine gas or ozone generators.
- iv. Oxygen Resuscitation Equipment.

(Refer Guideline ARM Aquatic Risk Management)

Where there is a combination of indoor and outdoor pool and spa locations it is recommended that rescue equipment be made readily available in each location.

RE 4- Rescue equipment that is provided should be in line with the qualification of supervisory staff where provided.

(Refer Guideline GS General Supervision)

RE 5-Where possible rescue equipment should be utilized by people trained in its use.

(This should not preclude the supply of basic rescue equipment such as a reach pole that can be utilized by people with no formal training).

1. TITLE POOL COVERS

2. PURPOSE

To provide advice and guidance on the use of pool and spa covers for both indoor and outdoor environments.

3. GUIDELINES-PC

PC 1-Pool and spa covers should be fitted with fastening devices allowing longitudinal fixing to reduce the chance of being dislodged in strong winds.

PC 2-At all times recreational swimming is not permitted when pool covers have been

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partially removed. Appropriate signage displaying this message should be displayed around the pool concourse.

(Refer Guideline HMC14 Advisory Signs).

PC 3- Pool covers should never be used as a substitute for appropriate and adequate isolation fencing.

PC 4- Installation and removal of pool and spa covers should be carried out in accordance with manufacturers operating instructions and relevant occupational health and safety guidelines.

PC 5- Pool and spa covers should be stored and maintained in accordance with the manufacturers' recommendations.

PC 6- Pool and spa covers and storage frames should not be permanently or temporarily located in a manner that inhibits supervisory sightlines or creates a hazard to pool or spa patrons and/or supervisory persons.

CONTENT OF FIRST AID KIT AND/OR ROOM

PURPOSE

To establish a list of contents for the first aid kit and first aid room (where provided) for body corporate swimming pools and spas.

DEFINITION

The following Guidelines are recommended in reference to the relevant State and Territory Work Cover First Aid in the Workplace legislation.

Aid Facilities and Services, Workplace Amenities and Facilities, Personal Protective Clothing and Equipment. The following guidelines should be implemented in conjunction with a Risk Management Assessment performed by the facility management to determine the relevance of installing or implementing a first aid room relevant to the user groups and their expectations of the facility and the aquatic environment provided. (Refer Appendix B Risk Management)

GUIDELINES FAK/R

FAK 1-First Aid Kit (Container) Nature of the First Aid Kit

FAK 2-The Kit should be in a solid, sturdy and dust-proof container.

FAK 3-The Kit should be large enough to adequately house the contents of the Kit.

FAK 4-The Kit should have a white cross on a green background prominently displayed on the outside.

FAK 5-The Kit should not be locked.

FAK 6-The Kit should be of a portable nature.

FAK 7-The facility operator should consider the appropriate location of the first aid kit. The location should be clearly identifiable (see Section 3.2.2 above) and accessible to any hotel, School, camping or other recreational ground employees and/or supervisory individuals. Employees should be advised of the location of the first aid kit during any induction process.

FAK 8-First Aid Kit - Contents

FAK 8-First Aid Rooms should have a First Aid Kit with the following contents:

- i. Emergency services telephone numbers and addresses.
- ii. Name and telephone number of workplace first aiders.
- iii. Basic First Aid Notes.

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- iv. Triangular Bandages.
- v. Sterile Eye Pads.
- vi. Safety Pins.
- vii. Adhesive Tape.
- viii. Sterile coverings for serious wounds.
- ix. Rubber thread or Crepe Bandage,
- x. Scissors.
- xi. Disposable latex gloves,
- xii. Small sterile un-medicated wound dressing.
- xiii. Medium sterile un-medicated wound dressing.
- xiv. Large sterile un-medicated wound dressing,
- xiv. Individually wrapped sterile adhesive dressing.

These items are considered the minimum requirements for a basic first aid kit.

FAK 9- It is recommended that the hotel, School, camping or other recreational ground staff ensure that the first aid kit(s) are maintained in proper condition and the expiry dates and stock levels of contents are replenished on a regular basis.

FAK 10-Fittings and Equipment

Any room used as a First Aid Room should provide the following:

- i. Blankets and pillows.
- ii. Two chairs.
- iii. Access to a container for the collection and subsequent disposal of soiled medical items used In first aid,
- iv. Sharps container for collection of any dangerous sharps, e.g. syringes.
- v. Hand basin with hot and cold Water.

FAK 11-Additional Modules

It is recommended that facility operators include in their Risk Management process (see Appendix B) the need to include an Eye Module and Burns Module in any first aid kit where chemical liquids or powders are handled in open containers.

FAK 12-This module should be kept in a container that clearly identifies its contents and purpose.

FAK 13-Contents: it is recommended that the following contents are included in the Eye Module:

Guidance notes.

- i. Eye wash (once only use container).
- ii. Sterile eye pads.
- iii. Adhesive tape.

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- 1. TITLE** **STANDARDS OF TRAINING FOR FIRST AIDERS**
- 2. PURPOSE** To establish minimum standards of training for first aiders at hotels, Schools camping and other recreational grounds with swimming pools.
- 3. GUIDELINES**

3.1 Basic Level

All staff expected to provide first aid should hold an appropriate and recognized First Aid Certificate as required by relevant State and Territory legislation.

For all lifeguards the minimum standard is The RLSSA Pool Lifeguard Award and Resuscitation Award or equivalent qualification.

It is recommended there be a minimum of one First Aid qualified staff member present at all times the swimming pool is available for use, either for clientele or for public entry. Where this not possible, an Action Plan should be developed in order to enable First Aid Trained staff to be contacted immediately. Currency All the awards should remain current according to the policy of the accrediting organization and, where appropriate, The Australian Resuscitation Council (ARC).

TECHNICAL OPERATIONS

PURPOSE

To establish guidelines on the practices required to ensure safe technical operations by hotel, School, camping and other recreational ground management.

DEFINITION

The governing legislation for Occupational Health and Safety in each state is the different Occupational Health and Safety Acts. Under the umbrella of the OH & S acts come the regulations, e.g. in Victoria there is the Occupational Health and Safety (Hazardous Substances) Regulations 1999. These regulations are a compulsory minimum for each state. Below the Regulations (in an enforcement sense) come various Codes of Practice. These Codes of Practice are not compulsory but the requirements of the Occupational Health and Safety Acts must be met, in other words, if you are not following a particular Code of Practice, then you have to be able to show how your alternative complies with the Occupational Health and Safety Act in your State or Territory.

it is important to note that this guideline does not replace the applicable Occupational Health and Safety Acts, Regulations and Codes of Practice in any way.

GUIDELINE-TO

TO 1. Dangerous Goods or Hazardous Substances Dangerous Goods

Dangerous Goods are those substances that may be corrosive, flammable, explosive, toxic oxidizing or water reactive. Dangerous Goods are classified as those which will have an immediate physical or chemical affect on property, people or the environment by fire, explosion, corrosion and Poisoning.

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TO 2. Hazardous Substances

Hazardous Substances are those substances that may have a health effect on those who deal with them. Hazardous Substances can also be classified as Dangerous Goods.

TO 3. Legislation

Dangerous Goods and Hazardous Substances are generally covered by different legislation.

Dangerous Goods generally come under Dangerous Goods Acts and Regulations and Hazardous Substances generally come under Workplace or Occupational Health and Safety Acts. Please refer to the applicable legislation for Dangerous Goods or for Hazardous Substances in your State or Territory.

TO 4. Emergency Action Plan

An Emergency Action plan needs to be available to all staff that are dealing with chemicals, and should cover the following:

- i. A list of all dangerous goods and hazardous substances and their locations, it should also
- ii. Contain all the Material Safety Data Sheets (MSDS) documentation.
- iii. A plan to contain any substance spills used on site.
- iv. A plan to clean up spills of each chemical.
- v. A list of equipment needed to contain chemical spills, including any Personal Protective
- vi. Equipment (PPE) that may be required. (Refer Guideline Emergency Action Plan)

TO 5. Register and Manifest

A register of Hazardous Substances is required to be held, and if the quantities kept exceed the quantities listed in the various Dangerous Goods Regulations, then a Manifest is also to be prepared and maintained. The Register needs to be updated when:

A new Hazardous Substance is introduced into the workplace, i. The use of existing Hazardous Substances is discontinued, iii. A revised MSDS is provided by the manufacturer, importer or supplier. For detailed quantities, please refer to the relevant Dangerous Goods (Storage and Handling) Regulations in your State or Territory.

TO 6. Placarding

Placarding refers to the installation of signage at the entrances and at storage areas at the site. The purpose of placarding is to notify emergency services to potential chemical hazards on the site. For further information refer to local State and Territory Dangerous Goods Regulations.

TO 7. Separation Distances

Regulations require that the risk to personnel, property or exposure to other Dangerous Goods is minimized by separation.

Separation can also be explained by some common sense approaches:

- i. Never store different chemicals together.
- ii. Never mix chemicals.
- iii. Always wear the appropriate Personal Protective Equipment, v. Always keep liquids away from dry chemicals.
- iv. Always ventilate the storage areas.
- v. Always check where gases accumulate.
- vi. Always check the MSDS for each chemical.

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There are a number of sources for information in regards to Separation Distances. The principle source of information is the Dangerous Goods Regulations of your State or Territory. Some States or Territories also have Codes of Practice that also describe Separation Distances.

In addition, there are also relevant Standards that describe Separation Distances such as:

- i. The storage and handling of liquefied chlorine gas.
- ii. The storage and handling of oxidizing agents.
- iii. The storage and handling of non-flammable cryogenic and refrigerated liquids,
- iv. The storage and handling of gases in cylinders.

I. The storage and handling of corrosive substances. Personal Protective Equipment (PPE)

Appropriate PPE needs to be provided for each chemical being used (as listed in the MSDS register).

It is recommended that staff be trained on how to use the PPE effectively.

TO 8. PPE signage needs to be displayed, promoting the use of PPE. This signage needs to be compliant with AS 1319 - 1994 Safety Signs for the Occupational Environment.

TO 9. Safety Signs

Australian Standard AS 1319 - 1994 Safety Signs for the Occupational Environment provides examples of safety signs that may be applicable to the hotel, School, camping and other recreational pari; aquatic environments.

1. TITLE TRANSFER OF INFORMATION

- 2. PURPOSE** To establish guidelines on the practices required to ensure relevant information is passed on from the aquatic facility constructors to the hotel, School, camping and other recreational ground owners and/or management.

GUIDELINES TI

TI 1. Enterprise Guidelines

It is essential that information relating to the aquatic facility upon handover to the owner or facility management be provided, with specific attention given to the transfer of knowledge on the following topics:-

- i) Maintenance/Cleaning Schedules or Programs.
- ii) Site Plans.
- iii) Standard Operating Procedures (SOP's).
- iv) Routine Machinery Maintenance Schedules.
- v) Work Notes.
- vi) Product Labels and Material Safety Data Sheets (MSGS). (Refer Guideline Technical Operations)
- vii) Manufacturers Service Specifications and Operators Manuals.
- Viii) Occupational Health and Safety (OH&S) procedures. (Refer relevant State Work Cover Authority guidelines)

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

TI 2. Maintenance Schedules

- i. Any information on the previously or to be performed maintenance activities should be passed
- ii. over to the owner/management of the aquatic facility. This should include previous/to be performed safety checks.
- iii. Any specific tools, equipment and machinery required to complete maintenance should be identified by the party handing over the facility.
- iv. Any safety implications associated with the maintenance activities should be identified and reported to the owner/management upon handover.

TI 3. Occupational Health and Safety

- i. Where practicable any information relating to OH&S hazards, any risks that have been assessed and any suitable controls that have been implemented should be made apparent to the owners/management upon handover, in line with current OH&S legislation.
- ii. Such information should also include current OH&S site standing in relation to local municipal council regulations,

1. **TITLE** **COMMUNICATION OF GUIDELINES TO FACILITY USER GROUPS**
2. **PURPOSE** To assist in the communication and transfer of knowledge detailed within this document from the Hotel, School, Camping & Other recreational Ground Management to its aquatic facility user groups.

INTRODUCTION

Throughout the Guidelines for Water Safety - Hotels, Schools, Camping Grounds reference is made to methods of informing the users of the aquatic environment of a number of facts, opportunities and guidelines relevant to safety in and around the Hotel, School, Camping & Other recreational Grounds aquatic area.

GUIDELINES CGF

The following methods of communication are recommended as excellent avenues to transfer the information suggested within this document to the facility users:

CGF 1. New User Group induction sessions, meetings, booklets, guides, handouts etc.

Within these avenues it is recommended that information from the following guidelines be incorporated:

- Guideline . Emergency Action Plan
- Guideline . Rescue Equipment
- Guideline . General Supervision
- Guideline . Parental Supervision
- Guideline . Safe Use of Floating Play Equipment
- Guideline . Precautions During Thunderstorms (Lightning)
- Guideline . Precautions During Diving (Recreational Swimming)
- Guideline . Alcohol Risk Management

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

CGF 2. Regular and timely tenant reminder emails from the Hotel, School, Camping Management to regular users, especially around the warmer months and holidays. Within this communication channel it is recommended that information from the following guidelines be incorporated:

Guideline . Rescue Equipment

Guideline . Shade Protection

Guideline . Alcohol Risk Management

CGF 3. Information sharing points, such as notice boards or monthly newsletters. Regular user group training sessions such as fire drills, evacuation practices, optional safety lessons etc on such topics as alcohol safety around aquatic environments, supervision training sessions with us groups. Adequate and appropriate signage in and around the aquatic environment drawing attention to the many varied safety issues related to unsupervised pool environments.

Further advice on communication methods including newsletter format samples, Notice Board Posters and information Posters can be posted.

DESIGN OF POOL TANK

To establish safety guidelines for the design of a pool tank.

GUIDELINES DPT

DPT 1. Pool Depth

Abrupt changes in water depth should be avoided particularly where swimmers can stand. Changes in gradient of the pool floor should be highlighted with a contrasting colour such as contrast tiles or painted lines.

Gradient for the pool floor should not be steeper than 1:15, particularly in water less than 1.6 metres. Changes in gradient of the pool floor where the depth is 1.6 metres or greater should be highlighted by appropriate signage.

(Refer Guideline Pool Depth Markings)

DPT 2. Surfaces

All areas where bathers enter or exit the pool or congregate during activities need to have a slip-resistant and non-abrasive surface. These include:

- i. Steps and ramps.
- ii. Beach entry.
- iii. Pool floor at shallow end where bathers can stand.
- iv. Learner and toddler pools.

All walkable floor surfaces including ramps and steps should have a slip resistant surface conforming to the recommendations of Standards - An Introductory Guide to the Slip Resistance of Pedestrian Surface Materials".

DPT 3. Siting of Pools

- i. Toddlers and learners pools should be situated away from the deep end of a pool.
- ii. Where this is not possible, effective transparent barriers, and appropriate signage should be
- iii. provided.

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

iv. These barriers should not interfere with the line of sight for supervision.

Water of 1.2 metre depth or greater should not be situated near main entry points to pool environment, major traffic flow areas or change room entry. Where this is not possible effective barriers, and appropriate signage should be provided.

DPT 4. Fittings and Fixtures

Any fixture or fitting in the pool wall (e.g. Lane rope anchors) and the pool floor should be fitted flush and have no sharp protruding edges.

Where fittings and fixtures are located in a tiled surface, the tiles should be flush with the fitting and have no sharp and protruding edges.

DPT 5. Gutters and Wet Deck

Where a wet deck gutter system is used, it should:

- i. Not allow water to flow on to the pool concourse.
- ii. The grate must be neat fitting with no gaps between adjoining grate sections and no raised buckled slats.
- iii. Curved grating systems should be flush fitting.

DPT 6. Diving Boards and Diving Blocks

- i. The dimensions for the design and construction of springboards are clearly shown in the FINA Handbook.
- ii. Springboards should be provided with a satisfactory slip resistant and non-abrasive surface.
- iii. Overhead clearance should be a minimum of 5.0m.
- iv. Springboards should be fitted to the fulcrum to ensure maintenance of a central aspect within the structure.
- v. Springboards should be provided at least 2.5 metres clear of the pool walls.
- vi. The springboard should extend over the pool edge into the pool for at least 1.5m.

Refer Guideline Precautions During Diving (Recreational Swimming) for information on depths for diving.

2. Table BC6 Dimensions for Diving Facilities

Adapted from FINA Dimensions for Diving Facilities, Part IX Facilities Rules.

FINA Handbook 2005-2009 Federation International De Natation Constitution and Rules.

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

1. TITLE DESIGN OF SPA POOLS

2. PURPOSE To establish safety guidelines for the design of the spa pools.

3. DEFINITION

Spa pools are heated pools of water, with equipment for creating turbulent water.

Spa pools are normally used for passive recreation and relaxation rather than swimming.

Spa baths are not discussed in this guide as they are emptied after each use like a conventional bath.

GUIDELINE DSP

DSP 1. The design of spa pool tanks should be consistent with Guideline Design of Pool Tank. Additionally, spa inlets, outlets and piping should comply with Spa Pool-Public Spas and/or Spa Pools-Private Spas.

Spa pools should be located where supervision can be undertaken and maintained.

Spa pools should be considered in conjunction with the same level of supervision as swimming pools.

DSP 2. Indoor spa pools should be provided with adequate ventilation, taking into account high evaporation and condensation rates, in accordance with The use of ventilation and air-conditioning in buildings - Ventilation design for indoor air contaminant control.

Ceilings, walls and pedestrian traffic flow surfaces should be of a moisture impervious finish.4.4

DSP 3. The maximum recommended water depth is 1.1m.

The maximum recommended seat depth is 600mm from the waterline.

DSP 4. Design of steps and ladders should be in accordance with Spa Pool-Public Spas. Steps and ladders should also comply with Guideline Design of pool Access.

The location of underwater obstacles such as steps and ladders may not be visible in turbulent water and should be clearly indicated through the use of handrails and signage.

DSP 5. An adjustable thermostat may be used to control the temperature of the water. It should have a range not exceeding 40 degrees Celsius.

A second thermostat should be provided, which has a manual reset, and which will prevent users from being exposed to temperatures in excess of 45 degrees Celsius.

An emergency stop alarm device should be located adjacent to the spa which on activation will stop all circulation (blowers and filtration) in the spa pool.

The device should rapidly alert patrons and supervisors to its activation by way of an audible and visual signals, and should be clearly labeled to indicate its purpose.

DSP 6. At all times, the water filtration plant should be capable of turning over the volume of the spa pool at least once every 20-30 minutes, depending on local state and territory Health

Regulations.

Water quality should be maintained within local statutory requirements.

DSP 7. Air blowers and jets used to create turbulence in the water should have a 'shut down' period every 15 minutes. This is to reduce excessive use of the spa, and to assist in supervising the full spa tank.

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

DSP 8. Signage relating to patron usage should comply with Spa Pools-Public Spas and be consistent with supervision guidelines.

DSP 9. Drainage

The spa pool should be fitted with drain(s) to allow the tank to be completely emptied.

The drains and filter returns should be fitted with lint traps.

DSP 10. Automated shutdown- Entrapment

- i. The filtration plant and equipment should have fitted a pressure-monitoring device which activates an automatic shutdown. The limit of the pressure-monitoring device should be set to avoid injury from entrapment of foreign objects in suction inlets.
- ii. There should also be no residual suction on automatic shutdown.
- iii. Entrapment prevention may be further improved by the use of specially designed inlet covers as detailed in - Spa Pools - Public Spas and : Spa Pool: - Private Spas.

1. TITLE DESIGN OF POOLCONCOURSE

2. PURPOSE To establish safety guidelines for the design of the pool concourse.

3. GUIDELINES DPC

DPC 1. Concourse Width

The concourse is the area from the edge of the water to the wall or fixed seating or barriers. The recommended concourse width is 3.0 metres or greater particularly in the following areas:

- i. Entrance to pool.
- ii. Adjacent to shallow water.
- iii. Beach entry areas.
- iv. High traffic and circulation areas.

DPC 2. The recommended minimum width for the concourse should be 2.0 metres. Where the concourse width in an existing facility is less than 2m, interim measures should be taken to maximize the available concourse space such as:

- i. Preventing equipment and/or patrons belongings being left in these areas.
- ii. Removal of any planter boxes, rubbish bins, and any other further restriction to concourse width wherever possible.

DPC 3. Concourse Surface

1. Height Variations

- i. Abrupt changes in floor level in the wet concourse areas should be avoided.
- ii. If steps to changing areas are required, handrails and slip resistant surfaces should be provided.
- iii. Where there is to be a split-level concourse, and ramps are provided instead of steps, the ramp gradient should not be greater than 1:14. The desirable gradient is 1:15.
- iv. Slip-resistant surfaces and handrails are recommended.
- v. Where tiles are used, the tiles must conform to the recommendations of Standards
- vi. An Introductory Guide to the Slip Resistance of Pedestrian Surface Materials".

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

2. All walkable floor surfaces including ramps and steps should have a slip resistant surface conforming to the recommendations of Standards

3. Handbook "HB 197 - An Introductory Guide to the Slip Resistance of Pedestrian Surface Materials".

4. The concourse should be constructed to facilitate drainage or flow of water to the wet deck gutter and prevent pooling of water.

5. All concourses should be free from lips or raised edges, particularly where surface changes (e.g. tiles to wet deck) unless otherwise clearly identified by contrasting colour or hazard identification markings.

DPC 4. Supervision Points

1. The layout of the water space should allow for supervision with a minimum of staff.
2. Ideally there should be one or two specific vantage points from which all water spaces can be seen.
3. These vantage points should be in direct visual and audible contact with either a reception or administration area of the complex.
4. Placement of barriers on the pool concourse should not obstruct lines of sight from the main supervision points.
5. The layout of the pool concourse should enable supervising persons to move around freely without losing visual contact with water areas.
6. Planter boxes and other features on the concourse should have no sharp edges or rough surface textures, nor should they interfere with sight lines for supervision
7. Such items should not reduce the concourse width, restrict circulation flow or restrict emergency access and egress, or obstruct lines of sight from the main supervision points.

DPC 5. Seating

1. Where seating is provided on the concourse, the minimum concourse width remaining after allowance for leg room should be 2.0 metres,

1. TITLE	DESIGN OF POOL ACCESS
2. PURPOSE	To establish guidelines for the safe design of swimming pool entry and exit.

GUIDELINES DPA

DPA 1. Access

Pool entry/exit steps and handrails above, at or below the surface of the water should not protrude into or over lap swimming lanes where they may present a hazard to swimmers.

DPA 2. Railing

Handrails should be provided at all entry/exit steps.

The handrails should be designed to prevent entrapment of limbs and should be placed so that they do not present a hazard during aquatic activities such as tumble turns and play.

Barrier rails should be provided to prevent swimmers from jumping from the concourse on to

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

steps or ramps.

Handrails should be provided on both sides of a ramp.

Steps that may be frequented by aged and/or frail persons should be provided with handrails on both sides in accordance with AS 1428.1:2001 -General Requirements for Access- New Building Work.

DPA 3. Steps

i. Entry/exit climb outs and steps should be provided on both sides of each end of the pool.

ii. For longer (50m) pools these should be provided at the midpoint of each side.

Where possible the steps and railings should be recessed / flush with the pool wall.

Vertical (rise) and horizontal (tread) edges of steps should be a contrasting colour to aid entry and Exit from the pool. Steps should have rise and tread conforming to local building regulations where relevant and have slip-resistant and non-abrasive surface finishes. Step treads should have a slip resistance conforming to the recommendations of Australian Standards Handbook "HB 197 – An Introductory Guide to the Slip Resistance of Pedestrian Surface Materials".

DPA 4. For access to learner or toddler pools wider steps with shallow risers (approx. 150mm) are recommended. Where access is provided via steps, these should enter the pool from the shallowest end of the pool.

DPA 5. Leisure Pool Access

For irregular shaped leisure pools adequate entry and exit areas should be provided.

Beach entries should be flush with pool concourse or wet deck, and where not flush a contrasting colour band and appropriate signage should be used to warn the public about the change in level.

Beach entry areas should be visually distinguishable from the pool.

DPA 6.Ramps

i. Where disabled access is provided via a ramp, the ramp should be constructed at the

ii. shallowest end of the pool.

Gradients should be no steeper than 1:15

1. TITLE ADVISORY SIGNS

2. PURPOSE To provide advice regarding the type and nature of advisory signs for use in swimming pools.

3. GUIDELINES AS

AS 1. Standards KLF has developed guidelines for the design and application of water signs. Design and Application of Water Safety Signs and Public Information Symbol Signs). These signs have been well researched and evaluated and show very high results in terms of recognition and recall and as a result such signs, where applicable, may be used when appropriate.

AS 2. The Standards signs that may be applicable are:

i. Beware of deep water

ii. Beware sudden drop off

iii. Beware shallow water-do not dive

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

AS 3. Other signs, which may be applicable to body corporate pools, include:

- i. Slippery when wet.
- ii. Cleaning in progress. Pool dosed.
- iii. Advisory signage indicating what is allowed and who is allowed access to what area e.g. 'SU Only' signage on entrance to store/plant rooms.
- iv. No lifeguard on duty. In case of emergency, use telephone to contact reception staff.
- v. No Diving sign displayed in depths of water up to 1.8m deep. (Refer Guideline Precautions During Diving (Recreational Swimming).
- vi. No Running.
- vii. All children under the age of 10 must be actively supervised by an adult over the age of 18 all times.

AS 4. Any signs that are not provided for in Design and Application of Water Safety Signs (or any revision thereof), should conform to the design, location and legibility advice given in that Standard.

AS 5. The colour and manufacture of signs should conform to the co-ordinates specified in Development, testing and implementation of information and safety symbols and symbolic sign! (part 5 and 7).

- i. All markings must be of a strong contrast against the surrounding areas.
- ii. It is desirable that markings be installed to minimise fading or damage from bather traffic from cleaning.

AS 6. A Resuscitation chart should be prominently displayed in the pool area. (Refer to Kenya Resuscitation Council Basis Life Support Flow Chart)

AS 7. Where applicable it is recommended that any signage located in areas of sunlight be of a UV resistant design to prevent breakdown and fading of signage.

1.	TITLE	POOL DEPTH MARKINGS
3.	PURPOSE	To advice pool designers, builders and operators on the minimum standard of markings for Pool water depths

GUIDELINES PDM

DPM 1. All depth markings should be provided in metric or feet measurements. Markings should be in metres, e.g. 0.9m, 1.2m, 1.5m, 1.8m, 2.0m.

DPM 2. The markings should be in numerals and letters at least 100mm in height. Markings should be placed in a position where they can be seen from the water and from the poolside.

DPM 3. The number and location of depth markings will vary dependent upon the size and configuration of the pool. However there should always be depth markings at the shallow end and deep end, and additional markings along the length of the pool, as necessary to be visible from all areas inside the pool and surrounding the pool.

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

DPM 4. Any sharp change in gradient should be clearly marked and sign posted. (Refer also Guidelines Design of Pool Tank)

- i. In shallow water generally 1.2m deep or less the words CAUTION SHALLOW WATER or DO NOT DIVE or similar should be visible from the water and the pool concourse.
- ii. In deep water generally 1.5m deep or more the words DANGER DEEP WATER or similar should be visible from the water and the pool concourse.
- iii. In water depths of 1.8m or less an international standard no diving sign should be provided.
- iv. (Refer Advisory Signs)

DPM 5. All pool depth markings should be of a strong contrast against the surrounding areas Pool depth markings should be installed to minimize fading or damage from bather traffic or from cleaning.

SHADE PROTECTION

To establish guidelines for the safe design of swimming pool entry and exit.

GUIDELINE SP

SP 1. Landscaping

In open-air environments the landscaping and choice of trees should provide areas of shade. This should be enough provision of shade over wet and dry areas to cater for all those who wish to avoid long exposure to the sun, particularly between 11.00am and 3.00pm.

SP 2. Awnings/Covered Areas

The provision of awnings and covered areas with appropriate seating is recommended.

SP 3. Umbrellas can be used to increase the availability of shade. They can be fixed or moveable, however when in use they must be anchored securely.

1. TITLE	PARENTAL SUPERVISION
2. PURPOSE	To outline the guidelines for entry for children to swimming pools and the expected parental behaviour
3. DESCRIPTION:	It is emphasized that supervision by a competent person is essential whenever young children are near a pool. Parents should be aware that young children cannot understand concepts such as safety, danger, drowning and death. Also, they forget quickly, thus constant training and practice are necessary to maintain awareness and competence.

Drownings of young children typically have two features: silence and speed. There is seldom a splash or a call for help when the child falls into a swimming pool and the child's involuntary actions turn him or her face-down once in the water. Within as little as 30 seconds the child can become unconscious.

The need for constant parental supervision cannot be over-emphasized.

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

4. GUIDELINES PS

PS 1.

- i Children under 10 years should not be allowed entry unless under the active supervision of a person 16 years or older. (Active is defined by the Oxford Dictionary as: given to action, working, effective, practical, and diligent).
- ii. The discretion of the pool management may be used to increase these ages however it is not recommended that these ages are lowered Parents or guardians should actively supervise their charges at all times and as such should be dressed ready for action including unexpected entry to a pool.
Parents or guardians should keep an eye on children at all times when they are near or in the water, and be vigilant as distractions such as talking on the phone or reading a book can divert the supervisors attention.

PS 2. Signage

- 1 Signage or literature indicating the parental supervision policy of the pool is recommended, and should be in simple, positive, easily understood language and using symbols consistent with applicable Australian Standards (AS 2899.1-1986: Public Information Symbol Signs & AS 2899.2-1986: Public Information Signs- Water Safety Signs).
- 2 Suggested signage' should includes the following:
 - i. Unsupervised aquatic environment, Do Not Swim Alone.
 - ii. Any persons using this aquatic environment does so at their own risk, management recommends supervision at all times. (Refer Guideline HMC 1 General Supervision)
- 3 Signage or literature indicating the parental supervision policy of the facility should be displayed at the following points:
 - i. Entry to the facility.
 - ii. Entry or exit of change areas.
 - iii. Suitable locations e.g. toddlers pool, play areas.

SAFE USE OF FLOATING PLAY EQUIPMENT

To establish guidelines for the safe recreational use of floating mats and rafts, and small inflatable play equipment.

GUIDELINES SFE

SFE 1. Floating Mats and Rafts

Non inflatable mats and rafts constructed of high density and often hard buoyant material are increasingly used for casual water play.

Potential hazards with this type of equipment include:

- i. Use in deep water where non-swimmers may fall from equipment.
- ii. Falling from equipment onto pool wall or concourse.
- iii. Entrapments underneath the equipment.
- iv. Large equipment or too many items may restrict supervisor visibility.

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- v. User Injury from hard equipment falling or being pushed into or onto the user.
- vi. Allowing jumping from poolside onto the floating items.
- vii. Use in shallow water where people may fall from equipment.
- viii. Those not familiar with the environment.
- ix. Unused equipment left unattended on concourse.

Maximum unbroken surface area of covered water should be no bigger than 1m² to ensure supervision below the surface of the water and the pool bottom.

Consideration should be given to the maximum number of floating mats and rafts allowed in the pool at any one time.

SFE 2. Small Inflatable Play Equipment

Potential hazards with this type of equipment include:

- i. Use in deep water where non-swimmers may fail from equipment.
- ii. Falling from equipment onto pool wall or concourse.
- iii. Entrapments underneath the equipment.
- iv. Large equipment or too many items may restrict supervisor visibility.
- v. Allowing jumping from poolside onto the floating items.
- vi. Use in shallow water where people may fall from equipment.
- vii. Those not familiar with the environment.

Unused equipment left unattended on concourse. A non-swimmer following a floating toy into deep water. Wearing a flotation aid and moving into deep water. Young children choking on small toys placed in their mouths. Cleanliness (equipment not drying out between uses).

SFE 2.2

Play equipment should, but is not limited to, being: In safe, working order.

Suitable for the age of users.

- i. Large enough (greater than 7mm) in diameter to prevent becoming a choking hazard.
- ii. The body corporate should have a policy on whether they provide inflatable equipment or allow users to provide their own.
- iii. The hotel, School, camping or other recreational ground management should have a policy on whether they provide inflatable equipment or allow users to provide their own.
- iv. Persons who use exhaled air to inflate equipment should be afforded extra supervision.
- v. inflatable equipment, in particular inner tubes, should be inspected by users and/or supervisors prior to use to ensure there is no risk presented by an exposed or protruding inlet valve.
- vi. Bathers should not be permitted to jump or dive through inflatable rings.
- vii. Extra precaution and supervision may be required in outdoor pools, in particular on windy days.
- viii. Children requiring the use of personal floatation devices should not use this equipment.
- ix. Advice to be given to users:
 - x. Use in accordance with manufacturers instructions.
 - xi. Users should not inadvertently or deliberately push or throw each other either onto or off

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

- the equipment.
- xii. Users should not attempt to stand upright, on the structures.
- xiii. Users should not dive off the equipment into the pool.
- xiv. Users should remove all jewellery, watches and other sharp objects before using the equipment.
- xv. Users should not deliberately swim under the inflatable.
- xvi. Users must not lift the inflatable in an attempt to dislodge others.
- xvii. Small inflatables should only be used in depths of at least 1 m.

PRECAUTIONS DURING THUNDERSTORMS (LIGHTNING)

To provide guidance on safe practice for the supervision of outdoor swimming pools during thunderstorms and lightning conditions.

GUIDELINE PDT

PDT 1. Outdoor Swimming Pools

The presence of lightning around an outdoor swimming pool is a safety risk. There are a number of factors that need to be considered, such as the surrounding environment and structure.

The outdoor swimming pool with spacious open grounds may be at a greater risk than other pools of a lightning strike.

DPT 2. Supervision

Note: A flash-to-bang measurement of approximately 30 seconds indicates that the lightning is 1 km away. A measurement of 30 seconds or less requires that immediate action be taken.

DPT 3. Evacuation

- i. The closure of the swimming pool is required when lightning is within 10km of the aquatic venue. This should be completed by Supervisory staff where appropriate. It is recommended that advice regarding use of the Hotel, School, Camping and Other recreational Ground pool during lightning be provided to guests via induction manuals and other communication methods employed by the management. Further poolside advice is recommended in the form of appropriate signage. (Refer Guideline HMC 15 Advisory Signs)
- ii. Use the "flash-to-bang" method, by measuring the time between a lightning flash and the thunderclap, to make a rough measure of the distance.
- iii. When lightning is less than 10km away, people occupying the pool and pool surrounds should evacuate to a covered area, which provides sufficient electrical earth for a lightning strike. Gazebos, marquees and trees are not sufficient,
- iv. Electrical equipment should not be used during electrical storms
- v. Cordless and mobile phones should not be used outside during electrical storms, while landline phones should not be used at all during thunderstorms.

(Refer Meteorology Dept)

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DPT 4. Resuming Pool Activities

- i. According to the National Lightning Safety Institute more lightning originates from the back end of a thundercloud than from the front side, making recreation activity resumption decisions difficult. Managing the risk of lightning strikes, therefore, requires a cautious and conservative approach.
- ii. Once lightning has moved greater than 10km away or has subsided, people may return to normal activity. As a general rule, pool activities should remain suspended until thirty minute after the last thunderclap is heard.
- iii. Supervisors (whether voluntary or paid) should continue to monitor the weather for changes as storms activity could return.

DPT 5. First Aid

- i. Anyone stuck by lightning should be rescued as soon as it is safe to do so.
- ii. The safety of the rescuers should be considered.
- iii. The casualty should be moved to a covered area, assessed and treated.

DPT 6. Monitoring

- i. If there are area weather warnings issued, they should be monitored by radio or telephone, if and when safe to do so.
- ii. Detailed monitoring is available through the Bureau of Meteorology in each State and Territory.

- 1. TITLE** **PRECAUTIONS DURING DIVING (RECREATIONAL SWIMMING)**

- 2. PURPOSE** To provide safety guidance for diving (water entry) and methods of supervision during recreational swimming

- 3. DEFINITION** A dive entry is defined as a forward entry from a standing position with arms out-stretched and hands held together. Forward clearance is defined as the distance from the platform from which the diver departs, for which the water should be unobstructed. Obstructions may be permanent, such as pool walls, or temporary, such as pool equipment or other swimmers.

GUIDELINES PDD

Note: Diving into water can be a dangerous activity and the following guidelines describe the minimum conditions required.

PDD 1: Depths for Recreational Dives

- i. A dive entry is not recommended into a water depth of less than 1800mm.
- ii. A dive entry from pool sides exceeding 380mm above water level should not be permitted into water depth less than 2000mm.
- iii. Dive entry should only be allowed in pools where there is a forward clearance of

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

6000mm or greater, the first 5000mm of which should be at the recommended water depth.

PDD 2. Signage

Note; Refer to Guideline Advisory Signs, Guideline Pool Depth Markings.

- i. All signage relating to diving rules should meet the Standards required: Design and application of water safety signs for classification, layouts, size, legend, legibility, colours, and siting.
- ii. All signage relating to diving rules should accurately convey those rules.
- iii. AH signage should be maintained to be clear and easily identified.
- iv. Ail markings should be of a strong contrast against the surrounding areas, as per Design and application of water safety signs.
- v. Wording and symbols on signage relating to dividing rules should be consistent for all instances throughout the venue. in water depths of 1.8m or less an international standard no diving sign should be provided.
- vi. All practicable measures should be taken to prevent diving from elevated positions arising from design features or equipment used in the pool.

ALCOHOL RISK MANAGEMENT

To provide guidance on the use of alcohol in aquatic facilities and the management of the associated risks.

GUIDELINES ARM

ARM 1. Alcohol has long been recognised as a contributing factor in many accidental drownings. Alcohol impairs balance and coordination, judgment and cognition, is likely to increase risk-taking behaviour and diminishes an individual's physical ability to carry out tasks.

ARM 2. The Hotel, School, Camping or Other recreational Ground should conduct a thorough risk management assessment prior to the serving of alcohol near or in areas associated with the aquatic amenities of the premises. (Refer to Appendix B Risk Management for a detailed Risk Management treatment process, along with AS/NZS 4360-2004: Risk Management).

ARM 3. The facility should implement appropriate educational strategies in relation to its aquatic amenities, to discourage patrons who may be consuming alcohol from doing so near the water areas at that facility. Such strategies should also look to include information on the hazards of alcohol consumption in relation to aquatic activity (Refer Alcohol and Water Safety: National Alcohol Strategy 2001 to 2003-04), This may include appropriate signage, educational messages via newsletters or induction manuals.

ARM 4. Signage

The following signage is recommended for use by the body corporate to reduce the risk of alcohol related injury or death in the aquatic environment:

- i. Responsible consumption of alcohol is recommended.
- ii. No Glassware in the pool or spa area.
- iii. No alcohol to be consumed in the swimming pool or spa.
- iv. Individuals under the Influence of drugs or alcohol are not permitted to use the swimming pool or spa.

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

APPENDIX A

1. TITLE DEFINITIONS

Breathing Apparatus

Self contained equipment with compressed air tank and face mask allowing access into a contaminated environment without risk to the wearer.

Critical Incident Stress (CIS)

Often referred to as Post Trauma Stress. An emotional, physical or mental reaction to a traumatic incident,

Dangerous Goods

Dangerous Goods are those substances that may be corrosive, flammable, explosive, toxic, oxidising or water reactive. Dangerous Goods are classified as those which will have an immediate physical or chemical affect on property, people or the environment by fire, explosion, corrosion, or poisoning.

Deep

Water of 1.5m deep is considered the generic deep-water depth measurement.

Emergency Action Plan (EAP)

A pre determined, documented and rehearsed plan of action implemented on the witnessing or advice of the occurrence of an emergency (e.g. fire, bomb threat, Chemical spill).

Guideline

A guideline is a voluntary standard.

Gutter

A channel around the edge of a swimming pool into which water flows for return to the filtration heating *and* treating equipment.

Hazard

A source of potential harm.

Hazardous Substance

Hazardous Substances are those substances that may have a health effect on those who deal with them. Hazardous Substance may also be classified as a Dangerous Good.

Major Incident

an incident resulting in injury or damage which is deemed to be life threatening.

Minor Incident

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An incident resulting in injury or damage which is not deemed to be life threatening.

Personal Protective Equipment

Personal Protective Equipment (PPE) such as gloves, goggles and face mask are designed to protect an individual when they are working in a hazardous environment.

Public Place

Any place other than private property, open to the public, which the public has a right to use and which includes a public road. Private car parking areas are not considered to be public places.

Regular

A normal occurrence.

Risk (as defined by Risk Management) The chance of something happening that will have an impact on objectives.

(Note 1: A risk is often specified in terms of an event or circumstance and the consequences that may flow from it). (Note 2: Risk is measured in terms of a combination of the consequences of an event and their likelihood). (Note 3: Risk may have a positive or negative impact).

Risk Management

The identification and management of potential and existing hazards.

RLSS

The Royal Life Saving Society

Separation Distances

The minimum distance required between stores of two different chemicals or between a store of a chemical and a protected or public place.

Wet Deck

The pool concourse is essentially flush with the surface of the pool water. The water flows into the wet deck gutter(s) to return to the plant room.

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

APPENDIX B

ABSTRACT ON HEALTH AND SAFETY STANDARDS ON AQUATIC FACILITIES IN NAIROBI, NAKURU AND KIAMBU COUNTIES.

BACKGROUND

Swimming pool hygiene and safety has been a great concern to many who uses pools facilities in Kenya.

Many cases have hit the Kenya headlines in T.V stations and on major National Newspaper where death due drowning in many pools in Nairobi and Nakuru has featured several. A month does not end before a fresh case is reported.

These deaths in these pools has been attributed to poor health and safety standards of pool facility concern e.g. the water quality at time of accident reveals that the pool was green hence poor visibility in locating the victim in one case the fellow swimmers did retrieve two dead bodies in a pool and brought it to the attention of the lifeguards concerned and another case friends and relative notified the lifeguards of their missing colleague at the closing time after discovering his clothes, that when the lifeguard made a search under water and just to scoop a nineteen year boy. Reasons for his inaction, the pool was green. Why did he allow people to use the green pool, the management want financial returning at the end of the day, week and month hence he could not stop people from using the pool.

OBJECTIVE

1. To determine factors attributed to death by drowning in relation to poor health and safety standards.
2. To establish a policy formulation which may stimulate better methods of intervention on improvement of safety standards, training and proper management of aquatic facilities?

METHODS

1. KLF audit reports of aquatic facilities inspection done from 2008 to 2012 around Nairobi, Nakuru and Kiambu counties were used. The audit report was further summarized into ten sections to assess the compliance or non compliance of the aquatic facilities.

RESULT

In Nairobi 40 pools scored 0-20% compliance, 25 pools ranged 21%-40% compliance, 15 pools got 41-61%, 13 pools ranged 61-80% and only 7 pools ranged 81-100% compliance.

In Nakuru 12 pools scored 21%-40% compliance and only 4 pools obtained 81%-100% compliance

In Kiambu 11 pools received 21%-40% compliance while no pool reached the range of 81%-100% compliance.

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

DISCUSSION

The relevant authorities that supervises and manage public swimming pools must be licensed to operate them and have an overseeing authority that will supervise and monitor their safety and compliance to general and specific safety and hygiene standards as established by them. Staff working at these stations must be trained and certified to work in their various stations and authority should be established to monitor and enforce this.

CONCLUSION

Public swimming pools, both hotel and learning institutions must engage competent personnel who are trained and certified. Such personnel can then be held liable for incidents that occur within their jurisdictions. We must act together on this to keep the swimming pools the fun place they are support to be and not and not turn them into death wells (et Paul Angar 2011)

APPENDIX C

ABSTRACT ON DROWNING MORTALITY IN KENYA

INTRODUCTION

Death due to water has not been a research topic nor has there been any regular data collected in Kenya in the past, as it is the case in most countries in the developing world. As discussed during the last World Water Safety Conference 2007 in Portugal and 2011 in Vietnam it is extremely difficult to obtain data on drowning in African countries' statistical bureaus despite Africa having the highest estimates of drowning cases in the world (13.1 per 100,000 population)(M.M Peden & McGee). The hypothesis of this study origin from these estimates. It proposes that death by drowning occurs far more often than generally perceived in Kenya; first, because of lack of proper reporting and no available statistical evidence available, second, because swimming and lifesaving skills are limited in the population.

OBJECTIVE

1. Come up with an estimate of number of deaths caused by water for the year 2010-2012 in Kenya;
2. Establish in which way and to which proportion these accidents are related to inabilities to swim, lack of lifesaving skills, poor maintenance (as for swimming facilities), environment hazards (as floods) accidents road/ferries and other factors.
3. The outcome of the research will be the base to develop a strategic planning for Kenya lifesaving development to be proposed to the Kenya Government and other agencies.
4. To provide Kenya drowning mortality data to the International Lifesaving Federation ILS.
5. To come up with recommendations and propositions how to address the situation.

METHODS

Secondary data from the Print media, T.V Stations, Radio Station was used. A media

monitoring company (reelforge) was contracted to compile the data.

RESULTS.

This will be presented during the world conference on drowning prevention in Germany.

DISCUSSION

Drowning is subject that is not discussed in Kenya; this makes it a complex process from the perspective of epidemiology that requires information to understand these information essential for a successful strategic prevention campaign. This will require a change in the recording system in Kenya as most drowning are classified as accidents in the police stations and hospitals. The fear of police beauracracy makes the witness or rescuers opt not to record the matter with authority. The institutions and families affected will conceal the matter in guarding their image. The media cannot be fully relied on and as such a proper research is required and should be carried out.

CONCLUSION

A well detailed research paper into this matter is required and should be well funded as to establish a realistic data on drowning mortality in Kenya.

APPENDIX D

ABSTRACT ON PERCEPTION OF DROWNING IN KENYA AND ATTITUTDE ATTRIBUTED TO DEATH BY DROWNING

RESEARCH ABSTRACT ON PERCEPTION OF DROWNING IN KENYA AND ATTITUDES ATTRIBUTED TO DEATH BY DROWNING

BACKGROUND

Drowning in Kenya is looked at as some distant accidental event that is sad and unfortunate and left at that (Paul Angar 2011). This sad situation or evaluation has simply fed into this menace and so the data piles up as we add figures of victims to the national data base. The Kenya Lifesaving Federation has tried to keep tabs on drowning accidents and it is the increasing numbers of incidents and victims that has elicited this research.

OBJECTIVE

1. To determine the factors and issues on perception of drowning in Kenya
2. To get the findings that will influence the formation of policy with aim to improve the methods of intervention aquatic disasters, training and proper management of aquatic facilities.

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3. To understand the psycho-social factors attribute to death by drowning.
4. To help Kenya Lifesaving Federation to establish the scale of drowning in the country and call for action by the government and other relevant national/international organizations.

METHODS

A structured self-administered questionnaire was developed from January 2012 to determine the factors and issues on perception of drowning in Kenya and attitudes attributed to death by drowning. This questionnaire has ten questions where hard copies were distributed all over KLF branches in the country and also soft copies were emailed all over the country. Some questionnaires were answered orally to assist those who cannot read/write.

RESULT

The overall result shows that drowning is a serious problem in Kenya but highly ignored, a big percentage have had a friend or relative died through drowning. There are no traditional methods used for drowning intervention but for traditional drowning prevention method existed such as scare tales of ogres, animals in the water for children to be scared and prohibition to swim for children. Little or none cultural aspects associated with drowning. A large percentage are advocating for water safety awareness, learn to swim programs, training and employment of rescuers and a big number of people cannot swim.

DISCUSSION

Drowning can be prevented and efforts should and must be made to promote water safety awareness at all social levels. Schools would be a good point to start from since educating a child is education in a nation. The disciplined forces should be trained on water safety and Rescue as they should be our first line of defense in major emergencies like floods. The industrial training department should enforce water safety training in all institution as drowning never selects its victims.

The emergency rescue service providers must also be trained in water safety and its attendant emergency procedures which will be unique and specific to water environment.

CONCLUSION

Drowning must no longer be a norm, serious investigations should be carried out and those responsible, if guilty, punished. Compensations to dependants or families of victims should if also be considered where applicable. (Paul Angar 2011).

APPENDIX E

ABSTRACT ON ASSESSMENT OF LIFESAVING DEVELOPMENT IN KENYA

Background of the problem

Lifesaving development in Kenya and Africa in general remains a big challenge. This is due to the absence of lifesaving structures, policies, bodies, and lack of other resources related to the general underdevelopment of Africa.

In Kenya, swimming has for a long time been done in rivers for recreation and competition, even before the advent of the colonialists (Wanderi, 2001). As the British colonialists left, after independence, more and more Africans had not only learnt how to swim but also how to teach formal swimming, having learnt from the whites (Nteere, 1982). Swimming and lifesaving in the country has further been boosted through Kenya YMCA aquatic programs, the formation and activities of the Kenya Swimming Federation (formerly ASAK), Kenya lifesaving federation formerly KLLA, Nairobi Swimming Association and Coast Swimming Association all of which have promoted Swimming and lifesaving to international levels, Other recently formed affiliates of KLF are branches of Nakuru, Thika, Kisumu, Mombasa, Nyeri. These bodies organize and manage swimming and lifesaving events in Kenya.

During the past 10 years, aquatics related activities have become one of the popular recreational activities. More people are engaging in activities in and around water. Properly trained individuals are therefore needed to supervise and guard these activities. Aquatic knowledge and understanding are the primary tools for preventing an accident that could lead to a drowning. The trend toward aquatic activity has generated a new awareness of water fun safety for all age groups. With these has risen drowning cases.

OBJECTIVES

1. To assess the lifesaving development level in Kenya.
2. This study will provide information that may be used to develop strategic planning by the Government of Kenya through Kenya Lifesaving development so as to curb water related mortalities.
3. The study will provide baseline data for future research in this field in Kenya and be a source of academic reference.

METHOD

A structured self-administered questionnaire was developed from January 2012 to assess the lifesaving development in Kenya. This questionnaire has twenty questions where hard copies were distributed all over KLF branches in the country and also soft copies were emailed all over the country. Some questionnaires were answered orally to assist those who cannot read/write.

RESULT

Most respondents stated lifesaving is not developing in their area. 2. Considered drowning as a problem in their areas, 3. Did not know any state legislation on water safety. 4. They all advocated lifesaving /swimming to be taught in all school plus national wide learn to swim program and 5. most of them do not know or heard about lifesaving sport.

GUIDELINES FOR WATER SAFETY IN PUBLIC SWIMMING POOLS

DISCUSSION

There is no one single solution on how to dispense lifesaving aid development to Kenya without major drawbacks. As we noted earlier the complexity in aid deliverance to Kenya is rather cumbersome. However, there are ways and possibilities easily accessible for KLF to build on capacities in lifesaving in the country. The findings of these assessment and drowning survey in Kenya will be the basis of the financial and other aid assistances dispensation.

CONCLUSION

The task of lifesaving development in Kenya is a major challenge to KLF and the government itself and will take time to set the right course in achieving the future desired goals. KLF would like to start in number of selected counties because it is unrealistic to do it in all counties at the same time. This way, through a pilot project, KLF could collect experiences and apply them on a wider level.

ADDITIONAL INFORMATION

Additional copies and information about these guidelines please contact, your local KLF branch: