

**PUBLIC AQUATIC FACILITY
SAFETY STANDARDS**

BY

**KENYA LIFESAVING
FEDERATION**

Promoting national water safety

PUBLIC AQUATIC FACILITY SAFETY STANDARDS

PUBLIC AQUATIC FACILITY SAFETY STANDARD

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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 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.

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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 Managent Board (SSMB) in lifesaving training, use of facilities at the sports stadia Kasarani. IN 30 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

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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.

Executive Summary

Every owner of a public aquatic facility has an obligation to provide a safe environment for every user of the pool. This obligation has been very clearly identified and affirmed by court decisions across Kenya. In order to meet this obligation, you need the assistance of the experts - the Lifesaving Federation. The Lifesaving Federation is the authority in aquatic standards and safety. Our standards and expertise are based on extensive research and more than 13 years of public safety education and service. We are leaders in research and prevention of injury and drowning.

The Lifesaving Federation has a mandate for public safety. The Lifesaving Federation Aquatic Safety Standards - Public Facilities are your source of information about how to provide a safe environment and understand the regulations and standards that you must follow to achieve this goal. The Federation developed and published these standards to educate pool owners about what they can do to operate their pool safely. Applying these standards to your pool will help you protect your customers - the public. It will also help you reduce the risk of injury or legal actions resulting from injuries.

The information in the Lifesaving Federation Aquatic Safety Standards - Public Facilities is organized in a logical order to help you understand the material and take the necessary actions to create and maintain a safe environment for your pool

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users. The following sections of the Standards address information for specific needs:

Research on The Drowning Mortality in Kenya, Health and safety standards , Perception of drowning in Kenya and Assessment of lifesaving development in Kenya- Provides you with information from the Kenya Lifesaving Federation Drowning Researches about who is at risk of drowning or being injured at your pool and the behaviours that may result in injuries.

Definitions - Definitions of terms used in the standards.

Risk Management - Provides you with information about your responsibility as the pool owner for the safe operation of your pool. Explains the risk management process that you can use to analyze and understand the risks associated with your pool and take steps to eliminate or reduce these risks.

Personnel and Supervision - Explains the requirements for staff to operate and supervise a public aquatic facility. It also includes recommendations for staff training and safety.

Emergency Procedures - Emergency procedures are the steps pool staff can take to respond to an incident or help an injured person. This section provides guidance to help you identify and plan for the procedures you will need for your pool and select the necessary emergency equipment.

Safety Systems - Safety systems are the day to day actions and policies established to prevent incidents and injuries. They include such things as pool rules and how they are to be implemented, procedures for controlling access to the pool, suggestions for signs to educate users about hazards and safe behaviors for using the pool, and systems for supervising patrons.

Pool Operation - Presents recommendations for the procedures used to operate the swimming pool and maintain a safe pool. This includes maintaining safe water quality, handling pool chemicals, and inspecting and testing pool equipment.

Safe Environment - This section provides you with direction about how to make the physical environment of the pool safe. This includes items such as fencing, gates, recreational equipment such as slides, safe water quality, pool and equipment maintenance and more.

Resources - This section includes information about additional support resources and information available from the Lifesaving Federation. This includes Lifesaving Federation links to Government resources and other organizations which can assist aquatic facility owners and operators to provide a safe environment. The Safety Management section of the Lifesaving

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Federation website - www.klf.co.ke - is your key to the most complete and current resources from the Federation. The website will also have information about emerging issues that may not have been included in this edition of the Lifesaving Federation Aquatic Safety Standards - Public Facilities.

The Lifesaving Federation recommends that you read the Lifesaving Federation Aquatic Safety Standards -Public Facilities and use this document to evaluate your pool and determine what steps you can take to create a safe environment for your patrons. This information should be shared with facility staff such as lifeguards and pool operators as well as other management who have a safety management role such as a community recreation director and your municipal risk manager. At least one copy of the Lifesaving Federation Aquatic Safety Standards - Public Facilities should be kept in the pool office for easy reference by facility staff. Additional copies are recommended for the other safety managers who should be aware of these standards.

Contact the Lifesaving Federation for assistance to understand, interpret and implement the recommendations in the Standards. The Federation contact information is located on the inside back cover.

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FORWARD

Faced with the potential for million shillings lawsuits, public aquatic facility owners should be more proactive in assessing and managing risk in their aquatic environment. The Lifesaving Federation believes that many incidents are foreseeable and therefore preventable.

As the lifeguarding experts, the Lifesaving Federation is the authority in aquatic standards and safety. The Federation establishes standards for public safety and consults on aquatic safety issues. The Federation sets public safety standards for the aquatic industry such as the owners and operators of swimming pools, interprets safety standards for aquatic facility owners, advises government and serves as an expert witness in legal cases involving aquatic safety issues. The Lifesaving Federation Public Aquatic Facility Safety Standards present the Lifesaving Federation standards and recommendations for the safe operation of public aquatic facilities.

The Kenya Lifesaving Federation has developed and published public safety standards for aquatic activities and facilities. The Kenya Lifesaving Federation Safety Standards are compilations of aquatic safety guidance from Kenya Lifesaving Federation research that has been published this year 2013 in a Federation manuals and publications as well as external publications. The scope of Federation research into public safety and risk management practices includes research and real operational experience from across Kenya . In turn, the Federation's expertise is shared internationally with the Royal Life Saving society throughout the Commonwealth and with the International Life Saving Federation.

The Kenya Lifesaving Federation Public Aquatic Facility Safety Standards assembles the standards published in these many different sources into a single document to make this information available and readily accessible to the public aquatic facility owner. This document provides owners of public aquatic facilities a set of clear recommendations from the Lifesaving Federation for the safe operation of their pool. In addition to the Federation's recommendations, this document also refers public aquatic facility owners to other codes, regulations, statutes or standards that should be considered when developing safe operating practices for their pool. This document does not, in any way, replace or supersede current legislation. Owners and users must obey all provincial and municipal legislation, regulations and bylaws specific to their public aquatic facility and community.

The Kenya Lifesaving Federation recognizes that the recommendations provided in the Lifesaving Federation Public Aquatic Facility Safety Standards are not the only solutions that public aquatic facility owners can use to provide a safe environment for their customers. The Lifesaving Federation also recognizes that each public aquatic facility has unique features. No single document can address every situation and need. In situations where owners implement alternative safety measures, the Federation recommends that they thoroughly evaluate and document

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these measures. Contact the Lifesaving Federation for assistance to understand, interpret and implement the recommendations in the Standards.

Research abstract on

Health and safety standards of swimming pools facilities in Nairobi, Nakuru and Kiambu Counties in Kenya.

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%-

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100% compliance

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

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)

RESEARCH ABSTACT 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.

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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.

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.

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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.
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).

RESEARCH 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, aquatic 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.

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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.

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.

Definitions

Public Aquatic Facility

Any swimming pool generally available to the public or any segment of the public for their use and includes school pools, hotel pools and water parks; or A swimming pool operated in conjunction with or as part of a program of an educational, instructional, physical fitness or athletic institution supported in whole or in part by public funds or public subscription.

Facility manager

Means a person designated by the facility owner as being responsible for the management and operation of the facility.

Owner

Means the person or corporation who is the owner of a public aquatic facility.

Pool Operator

Means the person designated at any given time who is responsible for the maintenance of health requirements as outlined in the Swimming Pool Regulations. This person must hold certification from an approved swimming pool operator's training program.

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Swimmer or bather

Means a person participating in any recreational activity in or on the water.

Patron

Means any person using the aquatic facility. This includes swimmers or bathers plus any spectators or other persons on the deck, general area or in other areas such as change rooms within the aquatic facility

Lifeguard

Means a person holding a current National Lifeguard (KLF) certification appointed by the owner or operator to maintain supervision over the swimmers while they are on deck or in the pool.

Deck

Means the area immediately surrounding the pool.

General Area

means an area adjacent to the deck within the pool enclosure that is used for activities other than swimming.

Diving Board

Means a flexible board intended for use by divers, means a rigid board or platform intended for use by divers.

Current Award

Means a training certification which is valid for a specified period from the date of certification or examination. The length of time that a certificate is current may be set by the certifying body and/or government regulation. For example, Lifesaving Federation National Lifeguard Award is current for two (2) years from the date of certification and Lifesaving Standard First Aid certification is current for two (2) years from the date of certification.

Lifeguard Supervision

Is the deliberate and conscious act of observing facility users to ensure the lifeguard is immediately aware of any incident or behaviour which may prove life-threatening or injurious

Risk Management

Who's Responsible

Ultimately the owner of a public aquatic facility is responsible for the safe operation of the facility. The responsibility for the operation of the facility may be delegated to a Facility Manager or Operator. This responsibility may be further delegated to individuals such as Supervisors or Lifeguards who may be left in charge of the facility if it is a supervised public pool. When the owner or manager

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is not present, the person in-charge, regardless of title, assumes full responsibility for the safe operation of the facility.

The Lifesaving Federation Public Aquatic Facility Safety Standards outlines the Lifesaving Federation's recommendations for minimum safety requirements for public pools. Safety must be the primary concern of pool owners and managers. All facility staff are encouraged to go beyond the minimum requirements in their mandate to provide a safe environment. This means practicing risk management: working diligently to prevent emergencies, but also responding to them quickly and efficiently if they do happen.

Risk Management Progress

Risk Management is an ongoing process that is used to identify risks associated with your pool and activities in the pool, and take measures to reduce risk and prevent incidents and injuries. The process includes the following steps;

1. Identify risks
2. Evaluate: Why are they happening? What is the source?
3. Develop controls and strategies to minimize or eliminate risks including education of facility users regarding safe behaviours
4. Implement
5. Monitor efforts and evaluate results

Preventing Incidents:

All facility personnel must view incident prevention as an integral part of their jobs. An attitude should be fostered and encouraged among staff that they are hired to anticipate incidents and take steps to prevent them, as well as respond to emergencies. Establishing safety systems are important steps in prevention. One way of doing this is to keep accurate incident records. Tracking incidents and analysing these records to develop strategies to reduce risk is critical to risk management. Facility analysis is an important means to reduce risk. Is equipment in good working order? Are there danger zones where incidents tend to occur or may occur? Are there problems created by structures or design? How secure is the area? Are the fencing and locking systems adequate? Can these be changed or the potential risk be reduced?

Insurance

The owner of a public aquatic facility must make certain that an insurance policy and liability coverage are in place to cover the facility, staff, volunteers and patrons. Check with your insurance broker or agent to make certain that you have the appropriate insurance coverage and understand any requirements, limitations or exclusions that may be conditions of the insurance policy

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PERSONAL AND SUPERVISION

Supervision

Lifeguards must be on duty and on deck at all times when the pool area is open for use.

In the event that the pool is being used solely for aquatic instruction, a qualified aquatic instructor may be substituted for a lifeguard only if each instructor is also a qualified lifeguard.

Each instructor can only supervise one class or group. Direct supervision means direct and uninterrupted control of the bathers by the aquatic instructor who is charged with their care. If even one instructor is not a lifeguard, a lifeguard must supervise the pool area.

Lifeguard Qualification

Lifeguard - Required minimum qualifications:

- Minimum age 18;
- Hold a current National Lifeguard Award;
- Hold a current Standard First Aid (Aquatic Emergency Care Award or Lifesaving Standard First Aid recommended); and
- Be trained in the facility safety systems and emergency procedures.

Instructor Qualification

Aquatic Instructor - Required minimum qualifications

- Minimum age 18;
- Hold a current Instructor award such as Swim for Life Instructor or Lifesaving Instructor;
- Hold a current lifesaving or lifeguarding award - minimum KLF senior national lifesaving (Distinction and National Lifeguard exceed the Senior national lifesaving);
- Be trained in the facility safety systems and emergency procedures.
- Note: If the instructor is also required to function as a lifeguard, they must meet the required minimum qualifications for a lifeguard.

Orientation Training

All new or returning lifeguards and instructors must receive orientation training before assuming their supervision duties. This training should include:

- Introduction to fellow staff members;
- Exploration of job description and responsibilities;
- Introduction to and evaluation of hazards and risks in the facility, and a review of facility rules and policies concerning them;
- Review of personnel policies and procedures;

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- Specific job-related training required to familiarize staff with the facility's programs, activities, operation and maintenance, and policies and procedures concerning supplies and equipment;
- Specific training in the facility's safety systems and emergency procedures; and
- Specific training in public relations and effectively dealing with the patrons.

In-service Training

Pool staff and employers must recognize the need for regular review of procedures and skills assessment. In-service training should include:

- Evaluation and practice of emergency procedures designed specifically for the public aquatic facility;
- Review and practice of supervision, recognition and rescue skills;
- Practice use of safety equipment;
- Review of supervision policies and procedures including number of staff per patron and guidelines for patron and staff conduct;
- Review and practice of first aid skills including use of first aid equipment and supplies;
- Practice of public relations and effectively dealing with the patrons; and
- KLF training appropriate to the materials and equipment they may be expected to use.

Supervision Standard

Every owner/operator of a public aquatic facility must establish an Aquatic Facility Supervision Standard. This standard must define the minimum requirements for lifeguards and instructors who are responsible for the supervision of bathers. The standard should include:

- Fitness and skill standards appropriate for the facility;
- Minimum vision and hearing standards;
- Practices to evaluate if conditions such as injuries, illness and pregnancy prevent the staff person from meeting the standard;
- Minimum training to effectively perform all required supervision duties; and
- A process to identify and replace on duty any staff member who is not able to meet the standard at any time they is scheduled to work in a supervision role.

Two parties have a responsibility to ensure that staff are able meet their obligations - the employer and the lifeguard/instructor. The employer is required to take reasonable steps to ensure that supervision staffs are able to perform to the Aquatic Facility Supervision Standard when employed in a supervision role. The lifeguard/instructor also has a personal responsibility to be able to meet the required Aquatic Facility Supervision Standard at anytime that they is lifeguarding or instructing. It also requires that anytime they is not able to meet the standard

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(e.g. due to illness or injury) they must inform her employer. A lifeguard who is unable to meet the minimum standard to lifeguard or instruct at her facility should not work in a supervision role until they is able meet the standard.

At least one staff member must be a certified pool operator. The pool operator is responsible for the safe operation of the physical plant of the swimming pool including maintaining safe water quality. The pool operator must hold a certificate confirming that individual's successful completion of an approved swimming pool operator's training program that is recognized under the Swimming Pool Regulation.

Staff Manual

Every public aquatic facility should develop a Staff Manual. This manual should be readily available to the facility staff. The Lifesaving Federation recommends that all staff be provided with a personal copy of the Staff Manual. The intent of this manual is to function as a training and reference resource for the pool staff and management. The suggested content should include:-

- All facility supervision procedures and requirements;
- All specific safety systems and emergency procedures that the staff member is required to know and be able to do;
- Relevant employment policies and procedures as well as any specific employment standards such as the Aquatic Facility Supervision Standard; and
- The Staff Manual may be a subset of the more comprehensive Facility Operating Manual.

Staff Communication

A system must be implemented which provides for regular communication and updates for facility staff.

The primary purpose is to communicate information that is useful in maintaining the safety of patrons and staff. Examples of this information includes:-

- Notice of large groups scheduled to attend the facility;
- Reporting of equipment in need of repair and steps taken to protect users; and
- Notice of equipment closure or repair

Barrier Devices

All pool staff must have access to barrier devices to prevent cross contamination in a first aid situation. At minimum this must include a rescue breathing barrier device with a one-way valve and disposable surgical gloves. Because public aquatic facility staff may be required to initiate first aid before the facility first aid kit arrives, the Lifesaving Federation recommends that all staff have barrier devices that can be carried with them while on duty.

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Sun Protection

All pool staff working at outdoor facilities must have effective protection from sun and weather. Protection from the sun may include protective clothing, SPF 30 sunscreen and/or shade structures at the lifeguard stations. The Lifesaving Federation position statement - Sun Protection in the Aquatic Environment - is posted in the Safety Management section of the Federation website at www.klf.co.ke

EMERGENCY PROCEDURES

All public aquatic facilities must develop and document a set of emergency procedures appropriate to the needs of the facility. The emergency procedures may be a combination of general and specialized emergency procedures designed to address incidents or injuries that may be expected to occur at the specific facility. It may be necessary to have different versions to accommodate different staffing levels (e.g. one (1) lifeguard vs. two (2) lifeguards on duty).

General Procedures

These are generalized procedures which can be adapted to a variety of incidents or injuries.

- Minor Emergencies - adequate pool coverage can be maintained at all times by one or more lifeguards (e.g. simple first aid, public relations)
- Major Emergencies - adequate pool coverage cannot be maintained and pool must be cleared until lifeguard attention can be directed back to pool supervision (e.g. multiple victims, serious first aid, pullout requiring resuscitation).

An excellent reference for developing emergency procedures for your pool is the Lifesaving Federation lifeguarding manual - Alert, lifeguarding in action. This manual also provides excellent guidance for many of the safety practices that are required for a safe environment. Additional resources are available on the Lifesaving Federation website at www.klf.co.ke

Specialized Procedures

Specialized procedures are designed to address very specific situations that may require very clear, detailed procedures. These situations may include events which threaten multiple individuals such as a fire or a gas leak. Other situations such as the treatment of possible spinal injuries benefit from developing very clear and detailed procedures which can be practiced and developed to a competent and consistent level of skill. Facility management and staff should analyse the types of situations that would benefit from specialized procedures and develop the appropriate emergency procedures.

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Examples of common specialized emergency procedures include:

Evacuation procedures for fire or chemical exposure such as chlorine gas leak;

Power failure;

Missing person;

Lightning;

Bomb threat;

Spinal procedures;

Scuba injury;

Specialized features such as diving tanks, watersides or wave pools.

Emergency procedures should include and document at least these elements:

Emergency signals;

Procedures for clearing the pool;

Roles of all responding staff;

Roles of bystanders;

Procedures for contacting emergency services;

Defined focal points for removing a victim from the water and providing treatment;

Emergency equipment required;

Procedures for notifying any other persons (e.g. management, a victim's family members, other persons that might be affected by the incident); and

Practices for dealing with media inquiries.

Emergency Procedures

Required Emergency Procedures

Every public aquatic facility must have the following emergency equipment available and appropriately located for use in an emergency:

- A dedicated emergency telephone with posted emergency numbers;
- At least two (2) buoyant throwing assists with a buoyant line attached. The length of the line should be at least the width of the pool;
- At least two (2) reaching poles at least three (3) metres in length. Ideally the pole should have a large hook that can be used to pull a person to safety;
- At least one spineboard with an effective immobilization system. At least one extra spineboard with head immobilizer is recommended for backup when a spineboard is removed from the facility to transport a spinal injury victim;
- At least one Number two (2) first aid kit with a rescue breathing barrier device with a one-way valve and disposable surgical gloves. Extra supplies for high use items such as bandages should be available; and
- A designated first aid area.
- The following equipment may also be appropriate for lifeguard use:
 - A rescue aid such as a rescue can or tube;
 - Oxygen inhalator capable of a flow rate of 10 -15 litres/minute. Inclusion of a pocket mask with oxygen fitting can permit oxygen resuscitation of a non breathing victim;

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- One or more extra spine boards with head immobilizers for training purposes; and
- An Automated External Defibrillator (AED).

Note: Emergency equipment can be purchased from the Lifesaving Federation and various safety equipment suppliers. Instructions for building throwing assists and reaching poles are available on the Lifesaving Federation website www.klf.co.ke

Contacting Emergency Services

Every public aquatic facility must have an emergency telephone which is easily accessible from the deck and directly connected to emergency services or the telephone utility. "Directly connected" is interpreted as guaranteed direct access. Facilities that use phones not directly connected to an emergency service must provide a phone line that guarantees immediate access to the emergency operator. A shared phone line is not acceptable if it allows the phone line to be busy when required for an outgoing emergency call. The telephone must be able to work in the event of a power failure.

Emergency contact telephone numbers must be posted by the emergency telephone.

It is recommended that a script for the emergency call be posted beside the emergency phone. This is particularly important if the emergency procedures include the use of bystanders to contact emergency services. The script should be designed to provide the information required to direct the request for emergency assistance. This may include information such as: facility address, phone number, a prompt to describe the nature of the emergency, the location for emergency access, etc. A sample script is available on the Lifesaving Federation website.

In the event of a serious injury incident, all persons involved in the incident such as rescuers or bystanders should be provided access to Critical Incident Stress Management (CISM) education and support. The Lifesaving Federation can provide contacts for CISM support. Local EMS and victim services organizations can also provide local contact information for Critical Incident Stress Management services in your community.

Safety Systems

All public aquatic facilities must develop and document a set of safety systems appropriate to the needs of the facility. Safety systems are the day to day actions and policies established to prevent incidents and injuries. They include such things as pool rules and how they are to be implemented, and procedures for preparing the pool area for bathers. Safety systems are an important part of minimizing risk and preventing injury.

Facility Operating Manual

Every Public aquatic facility must develop and maintain a comprehensive Facility Operating Manual. This manual should document all facility operating standards,

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expectations, policies and procedures required for the safe operation of the facility. The purpose of the manual is to serve as a training and reference resource. It should be stored in an easily accessible location.

Pool Safety Rules

Every public aquatic facility must develop and apply a set of rules to guide safe use of the aquatic facility and its equipment. These rules are intended to reasonably control the risks associated with the use of an aquatic facility while also facilitating the enjoyment of the aquatic recreation experience. The rules must be documented in the Facility Operating Manual. Facility staff should carefully analyze the facility and equipment to identify risks which may be inherent in their design and construction. Patterns of patron use will also provide useful data. The results of this analysis should be used to develop the safety rules. These rules should be communicated to patrons through the use of signs, announcements and other forms of public education.

Swimming Pool Regulations The Swimming Pool Regulation requires that operators regulate behaviour which could result in pool contamination and/or disease transmission. This includes excluding persons who have diarrhea, or who have had diarrhea in the past two (2) weeks, those who have an enteric disease or a disease communicable from the skin, requiring a cleansing shower, preventing polluting of the pool water, etc. For more information refer to the Swimming Pool Regulation of the Alberta Public Health Act.

Safe Diving Rules

Diving injuries are a leading cause of spinal injuries. Over 90% of spinal injuries occur in water less than 1.8 metres (6 feet) deep. Based on this research, the Lifesaving Federation's Standard for a minimum safe water depth for diving entries off the side of a pool or dock is 2.5 metres. Entries into water less than 2.5m deep should be feet first.

Recreational Equipment

Rules for the safe use of recreational equipment such as diving boards and platforms, slides, inflatable, etc. must be developed. These rules should include directions for safe use as well as any necessary restrictions such as age or height restrictions.

Signage

Signs serve two functions in a public aquatic facility:

- Inform users about the suggested rules for safe use of the facility; and
- Warn users of hazards and ways to avoid these hazards.

Signs with general safety rules must be posted in a conspicuous location in the pool area. Where possible, use signs which use pictures to convey the message. Use of universal symbols provides instant recognition and avoids confusion if readers cannot read or do not read English.

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Standards for Signage

Color: Red slash – the activity is prohibited
Yellow background – warning or caution
Green Border – activity is permitted.

Rules

Clearly indicate which activities are prohibited or permitted.
Including the reason for the rule increases compliance.

Duty to Warn

Identify hazards, the risk or consequence of the hazard and how to avoid it.

Location

Should be posted at the hazard and where possible, at the access points or routes.

Signs Required by Public Health Act

The Swimming Pool Regulation lists requirements for "health protection signs" that must be posted in the change rooms, pool area and office area. They also require a sign to be posted which indicates the maximum bather load for the pool.

Facility Safety Rules Signs

- The facility safety rules signs should list general rules to guide the safe use of the public aquatic facility, Some sample rules which should be posted are:
- Suggested minimum age and requirements for supervision of children (e.g. all children under the age of 7 should be accompanied "Within Arms Reach" by a responsible person 16 years of age or older);
- Request for notification of medical conditions that may affect bather safety; eg. seizure disorder (e.g. please alert the attendant of any medical conditions you may have);
- Anyone not toilet trained must wear protective water-resistant swimwear to prevent fouling and contamination of the pool;
- Please walk, deck is slippery;
- Foot-first entry only into the pool (a picture of no diving);
- Play safe. Don't push others into the pool; and
- No glass containers are allowed in the pool or on the deck.

Note: It is a common practice to include the health protection rules required by the Swimming Pool Regulation on the facility safety rules signs.

Whirlpool/Hot Tub Signs

Safety rules for whirlpools commonly include some or all of the following examples:

Check for safe temperature - a maximum of 40°C;

Enter and exit slowly. Headache or dizziness are signs to leave the water immediately;

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Do not use the whirlpool alone;

Limit length of use to 10 -15 minutes at one time. Note: A clock should be clearly visible from the whirlpool;

Children under 12 years of age should be supervised by an adult at all times.

Children under five years of age are not allowed in the whirlpool;

Pregnant women should use a whirlpool only with the approval of their doctor;

Persons suffering from heart disease, diabetes and high or low blood pressure should consult their doctor prior to use;

Do not use the whirlpool while under the influence of alcohol, antihistamines, anticoagulants, vasoconstrictors, vasodilators, tranquilizers, stimulants or narcotics.

Recreational Equipment Signs

Recreational equipment such as waterslides, diving boards or rope swings require specific rules and restrictions for safe use of each item. These rules must be posted in a readily visible location near each piece of equipment.

Diving Signs

Signs providing clear direction about where diving is permitted or restricted must be posted in locations readily visible to the diver.

Safety Systems

Other Signs

Signage should be considered for appropriate locations that informs customers about emergency signals and the facility admission policy. Facility management and staff should regularly evaluate if the existing signs are effective or whether other signage is required and take appropriate follow-up measures.

Admission Policies Admission policies must be established as part of the facility rules and communicated to the public

through signs and public education. Suggested topics for admission policies include:

- Minimum age and requirements for supervision of children;
- Notification of medical conditions that may affect bather safety (e.g. seizure disorder);
- Requirements or group admissions such as orientation to the facility and its rules;
- Additional supervision requirements.

Bather Load

The total number of bathers must not exceed the maximum bather load for the pool as defined in the Swimming Pool Regulation.

Bathers refer to people on the deck and in the water. People in the general area (such as areas set aside for loungers or for watching swimmers) are not considered bathers. However, if these people cross over from the general area onto the deck or into the pool, then they become part of the bather load.

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Supervision System

Every Public Aquatic Facility must establish systems to provide effective supervision of all persons and activities within the pool area.

Minimize Distractions

The primary duty of lifeguards is supervision. All efforts must be made to minimize distractions which may interfere with this duty. Short conversations between lifeguards and bathers are necessary for public education about safe use of the facility and are key injury prevention practices. Longer conversations are not recommended because they interfere with effective supervision. Assigning duties such as pool maintenance which may distract the lifeguard is not recommended.

Lifeguard Positioning

The supervision position(s) of lifeguards must be designed to eliminate blind spots in the pool area. It must be possible for the lifeguard team to observe all bathers in the pool area. Facility management and staff must analyse the pool area and implement systems that provide coverage of blind spots. These systems might include the use of elevated lifeguard stations, walking lifeguard patrols or the use of observation tools such as large mirrors or video cameras and monitors. A system must be implemented to provide regular observation of off-deck areas such as change rooms, saunas and steam rooms, exercise facilities, etc.

Vigilance

Lifeguarding is a vigilance task. Every effort must be made to keep the lifeguard alert and focused on supervision. Regular rotation between stations and regular breaks from the vigilance task are required. If two (2) or more lifeguards are on duty on deck, they should rotate lifeguard stations every 15 - 30 minutes.

The Lifesaving Federation recommends that lifeguards should be provided with a minimum 15 minute break from the supervision task every two (2) hours. During this break lifeguards may be required to perform other duties such as maintenance.

Scanning

All lifeguards must be able to continuously scan their area of responsibility. Short interruptions which are designed to prevent injury (e.g. safety education) are acceptable.

Lifeguard Identification

All lifeguards must wear a uniform which permits them to be easily and quickly identified. The purposes of the lifeguard uniform is to make the lifeguards stand out so that they are readily distinguished from bathers and spectators, and can be quickly contacted in case of an emergency or when assistance is required.

Number of Lifeguards

At least one lifeguard must be on duty on deck in order to open the pool for use. The Lifesaving Federation recommends that at least one other trained responder

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be on duty, within call and on the premises. This additional person should be trained in the emergency procedures for the facility. This person does not have to be a lifeguard and may be another staff person such as a cashier, janitor or manager. This recommendation for an additional person also applies during periods when the pool is being used for instruction or competition under the direct supervision of one aquatic instructor.

Note: "Within call" means the lifeguard on deck must be able to call the additional person by voice or by a prearranged alarm system. The lifeguard must not have to leave the pool enclosure or the victim to summon the assistance of the additional person. The additional person must be on the premises. Use of a pager or cell phone to call for assistance from an additional person who is off-site does not fit the meaning of "within call."

Lifeguard to Bather Ratios

The following table has been used by public aquatic facilities for many years in

Numbers of Bathers	Number of Lifeguards
1 - 50	1
51 - 100	2
101 - 200	3
201 - 300	4
301 - 400	5
401 - 500	6
501 - 700	7

Note: These numbers were developed at a time when the typical public aquatic facility was a single rectangular swimming pool, usually 12 - 25m

Nairobi as reference for Determining the minimum number of lifeguards required for a given bather load. Facility managers and staff must analyze their specific facility, equipment and bather behaviors to determine appropriate lifeguard to bather ratios for their facility. Some of the factors to consider include:

Size and configuration of the facility;

- Wave pool;
- Number of pools;
- Number of bathers;
- Age or ability/disability of patrons;
- Level of adult supervision such as parents or teachers;
- Type of bather activity;
- Danger areas;
- Equipment in use (e.g. toys, slides);
- Public education and relations requirements;
- Indoor or outdoor operation; and
- Blind spots or glare.

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Lifeguards should regularly (e.g. every 30 minutes) count the number of bathers in the pool. This count should be used to select the number of lifeguards required for that bather load. It is recommended that these counts be documented and used to regularly evaluate lifeguard requirements.

Instructional Programs Supervision

Every Public Aquatic Facility must establish systems to provide effective supervision during instructional programs. These systems may include:

- Defined meeting locations where students meet their instructor;
- Procedures to safely guide students out of the pool area after completion of the program;
- Supervision practices for instructors designed to provide continuous observation of all students.

Aquatic Instructor to Student Ratios

Facility management must consider patron safety foremost when setting instructor to student ratios. The instructor must be able to effectively manage the number of students and prevent emergencies. Some factors to consider include the type of activity and the age and swimming ability of the students.

Incident tracking and Analysis

Effective injury prevention requires an understanding of what types of injuries may occur and the circumstances under which the injuries may result. Every public aquatic facility must institute a system to document and analyze all injuries and rescues that occur in the pool. This data must be used to evaluate and where appropriate modify emergency procedures, safety systems; staff training or any other practices that might benefit from this analysis.

Pool Operation

Water Quality

Maintaining excellent water quality is a critical component of operating a safe environment for your patrons. The water quality must protect the health and safety of the users by protecting them from disease transmission and maintaining balanced water to prevent injury from chemicals “Good water quality also contributes to protecting the pool and its equipment and the swimmer's enjoyment of the pool.

Disinfection and Water Balance

Effective pool disinfection and water balance must be maintained at all times that the public aquatic facility is open for patrons. These procedures must meet or exceed the minimum standards required in the Swimming Pool Regulation. The Regulation also stipulates the minimum water testing requirements.

The Centres for Disease Control (CDC) has published a standard for the disinfection of water in a whirlpool which is significantly higher than the

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minimum required under the Swimming Pool Regulation. The CDC Standard requires a minimum Free Available Chlorine (FAC) of 4.0 - 5.0 ppm be maintained in all whirlpools. This standard is a result of research into exposure to Legionella and Pseudomonas in public pools. The Lifesaving Society recommends that the CDC standard should be used for the disinfection of all whirlpools and other warm pools.

Pool Water Clarity

The pool water clarity or the visibility of the pool bottom must be evaluated regularly throughout each day that the facility is in operation. The Swimming Pool Regulation states that "the water in a filled swimming pool must be sufficiently clear that the pattern of the pool drain can be clearly seen by a person standing on the edge of the pool at the deep end or that a black disc 150 millimetres in diameter on a white background, located on the bottom of the pool at its deepest point, is clearly visible from any point on the deck nine (9) metres away from the disc.

Good bottom visibility is imperative for public safety and cannot be compromised. If there is any doubt about water clarity, the pool must be closed until the problem is corrected.

Pool Fouling

Every public aquatic facility must develop a procedure to deal with a pool fouling incident. The facility must follow the requirements of the Provincial Fecal Contamination Management Policy published by ministry of Health and NEMA. This procedure must be able to provide for the removal of the contaminating material and provide effective disinfection of the pool. A pool fouling incident may involve the release of feces, vomit, blood or other organic, potentially infective material into the pool water.

Measures must be implemented which minimize the probability of a pool fouling incident. Children who have not been toilet trained must be required to wear a cloth or pool diaper covered by an impermeable pant with closures that see around the leg and waist openings. Persons with diarrhea, or who have had diarrhea in the past two (2) weeks, must be directed to stay out of the pool until they are well.

Pool fouling is a serious concern. Illness involving E. Coli and cry to sporidium have been traced to exposure in aquatic facilities. The Lifesaving Society website has resources to help aquatic facilities develop strategies to manage pool fouling Incidents.

Mechanical & Chemical Maintenance

All facility mechanical systems and chemical handling must be maintained and operated in a manner which protects the facility users and staff. The standards for these practices must be documented and followed by all facility staff. Reference sources for these

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standards include:

- Manufacturer directions and Material Safety Data Sheets (MSDS);
- KLF regulations and training;
- Pool operator manuals and training programs;
- Pool Operation
- Occupational Health and Safety regulations;
- Transportation of Dangerous Goods regulation; and
- Recommendations from fatality inquiries.

Inspection & Testing

All areas and equipment of the public aquatic facility must be inspected and/or tested on a regular schedule. The schedule should be designed for the needs of the specific equipment-it-area of the pool. This may range from a simple visual inspection to a process to test the safe operation of the equipment. Tools such as checklists should be used to document the inspection results and insure that the inspection process is consistent and comprehensive. Any deficiencies identified must be documented and recommendations for corrective measures identified.

Deficiencies which affect the safe operation of the pool or equipment should be corrected immediately. If this is not possible, effective steps must be taken to protect users and staff. In some cases it may be necessary to close the pool or equipment until it can be returned to a safe condition.

Recreational Equipment

All recreational equipment (e.g. waterslides, diving boards) should be inspected daily before public access is permitted. Equipment in unsafe condition must be closed until repairs can be completed and evaluated.

Emergency Equipment.

Pool emergency equipment must be inspected daily. All equipment must be maintained in a state of readiness. Any deficient equipment must be repaired or replaced immediately.

Suction Hazards

All pool water outlet covers must be inspected regularly (e.g. monthly) when the pool is in operation. If any of the pool's water outlet covers are loose or missing the pool must be closed until the cover is repaired or replaced.

Note: An outlet is an opening in the pool that can generate suction (e.g. main drain, vacuum fitting or skimmers). Loose or missing outlet covers have caused fatalities and serious injuries in aquatic facilities. Regular inspection of these outlets must be established.

Facility staff must not underestimate the power or danger of suction. Outlet cover inspections should be undertaken with extreme caution to ensure staff safety. The inspection procedure should include:

1. Shutting down the filter system and ensuring that:

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- There is no suction in the system;
 - The system is locked down or supervised to ensure that it is not turned on during the inspection;
2. A diagram of the pool depicting the outlet covers will guide the inspection. Each outlet cover should be assigned a number to help the accurate recording of inspection results;
 3. A second person should be present as an emergency back-up during the inspection;
 4. Record the inspection results and any remedial action required and completed.

Note: Some pool and whirlpool circulation systems include pool skimmers with equalizer fittings located in the pool wall below water level. All equalizer fittings must be permanently plugged and disabled so that there is no possibility that these fittings could create a suction hazard.

Any pool with only one drain must have an anti-entrapment device installed and maintained. Suction from the main drain in pools with only one drain has caused drownings and serious injury in the past. An anti-entrapment device can prevent this.

Pool Lighting

Pool lighting should be inspected daily and must be adequate to easily see bathers and hazards. Burned out bulbs should be replaced immediately. Emergency lighting should be tested at least once every month.

GFI - Ground Fault Interrupters

All GFIs must be tested at least monthly. Any GFI that fails the test must be disabled and the circuit it controls removed from use until the GFI can be repaired or replaced.

Safe Environment

The public aquatic facility owner must be familiar with all codes and regulations that apply to the operation of a public aquatic facility. This includes the building code which sets minimum construction standards for a public pool. Where applicable, relevant information from these standards should be incorporated into the policies and procedures of the facility and documented in the Facility Operating Manual.

Facility Access Control

Every public aquatic facility must implement a system to control access to the pool and the pool equipment. This includes providing effective locks, key control procedures and policies for access control. The pool area must be locked and not accessible to the public at all times when effective supervision is not available.

If the pool is an outdoor pool, it must be enclosed by a fence and gate system that complies with the Alberta Building Code requirements for a public swimming

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pool. In summary, the building code requires that the pool be enclosed by a barrier at least 2.0m in height that prevents unauthorized access to the pool. The pool gate must be at least 2.0m in height and equipped with a self closing, self latching, lockable mechanism that is located at least 1.5m above ground level. Consult the building code for the specific design requirements.

Hazardous areas such as mechanical rooms and chemical storage areas must be locked at all times that the facility is open or accessible to the public.

Recreational Equipment Waterslides

Waterslides must be maintained and inspected according to the instructions supplied by the manufacturer. Controls should be implemented which minimize the risk of collision or injury within the slide or the landing pool/flume at the bottom of the slide. Examples of controls would be:-

A slide attendant controlling the dispatch of sliders;

Signage indicating that the next slider can't go until the slider ahead has reached the end of the slide; and

A light which is controlled by a timer or a sensor which is automatically activated when it is safe for the next slider to go.

Operators should evaluate factors which affect the movement of bathers within the slide (e.g. water flow rate) and establish appropriate safety standards.

Note: Slider speed can affect the safety of the bathers. Sliding slowly and excessive speed can both create safety risks.

Diving Boards or Platforms

Minimum standards for safe entries off a diving board or platform are provided in the FINA (Federation Internationale de Natation Amateur) preferred standard. The latest version of the standard is available through links at the Lifesaving Society website or in the Alberta Building Code.

The FINA standards were designed to protect skilled competitive divers who are trained and supervised by diving coaches. Untrained recreational divers may experience a greater level of injury risk than competitive divers.

Note: Many older pools have diving boards and/or platforms that were installed according to an early standard and may not be able to meet the current FINA standard. The Lifesaving Society recommends that all diving board installations comply with the FINA preferred standard. The Lifesaving Society recommends that diving boards and platforms which cannot meet the current FINA standard should be removed from use.

Starting Blocks

Starting blocks for swimming competition must be installed and maintained in accordance with the manufacturers' directions. Refer to the Swim/Natation Canada rule book for the standard for the use of starting blocks for swimming competition and practice.

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If the starting blocks are available for use by the general public, the Lifesaving Society recommends that the water depth under and in front of the blocks must meet the FINA standard for a diving platform of that height.

Other Recreational Equipment

Other recreational equipment such as rope swings or large inflatable structures must be installed and maintained in accordance with the manufacturer's instructions. These installations must be analysed to identify any hazards or risks and steps taken to control these risks. Where entry from a height is involved, the FINA Diving standard may be useful for evaluating safe depth requirements.

Recreational Equipment Install of all recreational equipment must be in compliance with the Alberta Building Code. This code covers all permanently installed play equipment. The hardware of this equipment should be corrosion resistant and the design and location approved. The owner/operator must be aware of the specific regulations governing diving boards and water slide flumes.

Recreational equipment must be installed, maintained and operated in accordance with the manufacturer's specifications unless it contravenes the Alberta Building Code. These specifications can be obtained from either the manufacturer or the distributor of the equipment.

Recreation equipment must not contain any protrusions, means of entanglement or other obstruction that might cause the entrapment of a bather. All new equipment should be tested by the pool staff and appropriate rules for use be determined and posted before being released for use.

Resources

Relevant local government statutes, regulation or guidelines may include:

Building code

Fire regulation

Employment act

Occupational health and safety code

Transportation of dangerous goods

Liability act

Other relevant resources

Resources from other organization such, Royal Lifesaving Society Commonwealth, International Lifesaving Federation, FINA, IFSTA, CMAS are valuable resources to assist aquatic facility operators to evaluate the safety needs of their facilities and to develop practices for the safe operation of their facilities. Information and links to their websites are available on the net.

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References

- Public aquatic facility safety standards-Lifesaving Society Canada
- Lifesaving manuals-Royal Lifesaving Society Commonwealth
- Guideline for safe pool operation-Royal Lifesaving Society Australia
- Guidelines and policy statements- International Lifesaving Federation
- FINA Dimensions for swimming facilities-Federation International De Notation
- Pool operator hand book-Victoria Government Australia
- Swimming pool water treatment and quality standards-Independent Pool Water Treatment Advisory Group.
- Abstract research papers- Job Kania et 2013