Pool Safety operating Procedures (PSOP)
2012
INTRODUCTION

Welcome to Limpsfield Grange School Swimming Pool. These documents are compiled to give users of the pool information on Operating Procedures, Emergency Plans and the rules and regulations involved when using the pool. Running the pool safely and hygienically can only be done with the co-operation of all users of the pool. The following documents are in place to make the pool a Safe, Clean and Fun place to swim, please follow the instructions closely and enjoy your swim.

Thank you.
Sections

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2. Pool dimensions.
3. Risks and Hazards.
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5. Alarm Systems and Emergency equipment.
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Normal Operating Plan

Layout of pool

POOL CAPACITY 30,000 GALLONS – 150,000 LITRES

Maximum safe Bather load 39 persons.
Pool Dimensions

- Pool Length = 15.3 metres.
- Pool Width = 6.2 metres.
- Deep End = 1.5 metres.
- Shallow End = 0.85 metre.
- Surface Area = 94.86 square metres.
- Cubic Capacity = 118.94 cubic metres of water.
  = 28,000 Gallons.
  = 135,000 litres.
- Flow rate = 20 cubic metres per hour.
  = 4400 gallons per hour.
- Turnover rate = 6 hours.
- Per 30mm tile = 621 gallons per tile.
  = 2819 litres per tile.

Chemical Rates.

- Bromine = 5kg per week.
- Flocpak = 10ml per 20 cubic metres.
  = 240ml per day.
  = 1.68 litres per week.
  = 20 litres in 3 months.
- P.H. Plus = 5kg per month.
- Shock dose granules = 1.5kg of Chlorine Granules per Half Term
Risks and Hazards.

- To avoid accidents instructors should note that the **Deep End** of the pool is adjacent to the changing rooms and all swimmers should be made aware of this and should be encouraged to enter the pool at the **Shallow End**.
- Due to the insufficient depth and length of the pool **diving is not allowed** anywhere in the pool. Instructors are responsible for enforcing the **NO DIVING** policy and must make all swimmers aware of this rule.
- The floor in the pool building can be slippery when wet therefore swimmers should **never** be allowed to run at any time.
- The pool cover should be rolled up carefully and the ropes tucked away to avoid the risk of swimmers tripping over them.
- **Only Instructors** should re-cover the pool as it requires considerable effort and if the floor is wet there is a risk of slipping backwards. **At no time should children be allowed to re-cover the pool.**
- Swimmers are **not** allowed in the pool plant room at any time.
- **All** equipment such as floats, toys etc. should be put away in the containers against the wall when not in use to avoid trips and falls. **They must be put away tidily after each swimming session.**
- **All** parents and children should be made aware that they are not allowed to wander around the school buildings or grounds or enter any other building other than the pool.
- **Children** must be supervised at **ALL** times while on the school site and must not be left outside the pool building to play on their own.
- **Dogs** are not allowed on site at any time and if seen the owners will be asked to remove them immediately.
- Limpsfield Grange has a **NO SMOKING** policy which covers the whole site other than the smoking point at the visitors parking bays. Anyone ignoring this will be asked to extinguish their cigarette immediately or leave the site.
Public Safety

- All persons hiring the pool or their employers are advised to inform parents and swimmers of the Hazards and Safety Precautions in and around the pool.
- Hirers must point out to all users of the pool, the location of the emergency exit which must be used in all emergencies requiring evacuation.
- The person in charge of each swimming session must ensure that all doors are locked securely before leaving the pool building, failure to do so will result in the hire contract being cancelled.
- The pool must never be left unlocked and unattended for any reason.

**For Security and Safety reasons.**

- **Clubs should inform parents that:**
  - Parents or swimmers should never enter any other building on site other than the Swimming Pool.
  - Parents or swimmers are not allowed to wander around the site or to play on school equipment.
  - Children should be supervised at **ALL** times whilst on site.
  - Limpsfield Grange has several members of staff living on site and their parking spaces and privacy must be respected at all times.
  - Limpsfield Grange has limited parking spaces and at no time is anyone allowed to double park or leave their vehicle in a position where it is restricting access for Emergency Vehicles or where it could be a danger to school pupils or staff. Anyone parking dangerously will be asked to move immediately even if they are in the pool.
  - Parking is available off site in Park road and Granville road. Please do not park in the end of Water lane as it is too dangerous and restricts farm traffic.
  - The whole site is covered by C.C.T.V and anyone seen not adhering to the site rules may be asked to leave.
Alarm systems and emergency equipment.

- The Emergency Alarm Button is situated halfway along the left hand side of the pool, but is only of use when the school is occupied on weekdays during the normal school day.
- During school hours the Emergency Alarm Button should be pressed and help will come from the school.
- If the incident is serious the Emergency Services should be called straight away from the phone in the pool entrance dialling 9 first then 999 or 112 then press the Emergency Alarm button to summon help from the school.
- The Emergency Alarm is tested every Friday and is maintained by Crozet Alarms.
- For emergencies outside of school hours the phone should be used in all instances.
- A lifesaving torpedo buoy and throw bag are located on poolside together with floats, ropes and poles all of which can be used to retrieve a casualty from the water.
- A First Aid kit for minor injuries is situated in the pool entrance hall together with a box holding emergency blankets.
- All incidents and accidents should be reported to the school at the first opportunity.

**Emergency actions are dealt with fully in the Emergency Action Plan at the end of this document.**
Supervisory instructions for Instructors and Lifeguards.

- All Instructors and Lifeguards are required to have current Lifesaving qualifications suitable for the type of classes they teach.
- Copies of all instructors/lifeguards qualifications, enhanced CRB check and insurance must be presented to the school Business Manager prior to them working in the pool.
- All clubs must complete their own annual Risk Assessment for the classes they teach and ensure a copy is forwarded to the School Business Manager when completed.
- All Instructors are required to maintain correct pupil to teacher ratios as recommended by the I.S.R.M. Please see following pages.
- All Instructors should run classes in accordance with the class management and safety guidelines set out on the page headed Class Management and Safety. These are guidelines set out by the Royal Lifesaving Society.
- It is the lead instructors responsibility to ensure that the pool building is clear of people before ensuring both doors are locked securely and that the building is never left unlocked and unattended, a breach of this rule will result in the hire contract being terminated.
- All clubs and instructors are responsible for the behaviour of their customers whilst on site, it is essential that customers are handed a set of Site Rules when they register for lessons.
- The Maximum safe bather load for the pool at any one time is **39 Persons**
Pupil to Teacher ratios.

Refer to the publication Safe Supervision for Teaching and Coaching Swimming. In the vast majority of cases, pupil/teacher ratios should not exceed 20:1 – and in some cases should be less. The following ratios are for pupils in the water. If the teacher is also responsible for pupils not in the water but on the poolside, the ratio may need to be smaller. It is recommended that the teacher or coach should remain on the poolside during each session. If they enter the water another adult must take over supervision.

**Recommended ratios.**

Recommended maximum pupil to teacher ratios for programmed pool activities.

- **12:1 Adult and infant (baby) classes.**
  - Adult and infant classes should be conducted on a 1 to 1 ratio
  - One adult in the water holding one infant. Up to 12 pairs to one teacher.

- **12:1 Non-Swimmers and Beginners.**
  - Young children (primary aged children) or adults being introduced to swimming. In a school situation where a class of more than this number is being taught, utilising other adults e.g. parents, auxiliaries, sixth form students training for a sports leaders award etc, working under the supervision of the teacher may provide the additional safety resource necessary. The teacher must, however, make clear to these helpers the extent of their role.

- **20:1 Improving Swimmers.**
  - Swimmers of comparable ability who can swim at least 10 metres competently and unaided on their front and back. It is recommended that the lesson is confined to an area of the pool where the pupils are not out of their depth.

- **20:1 Mixed Ability Groups.**
  - Where a group comprises of pupils with a range of abilities (from improver standard to competent swimmer) but where the least able and least confident are working well within their depth. Swimmers technique, stamina and deep water experience should be considered.

- **20:1 Competent Swimmers.**
  - Those swimmers that can swim at least 25 metres competently and unaided on front and back and can tread water for two minutes.

- **Swimmers with Disabilities.**
  - Each situation must be considered independently as people with disabilities do not form a homogeneous group. Care must be taken to ensure that there are sufficient helpers in the water to produce a one to one ratio for those needing constant support and a sufficient number of other helpers to provide the degree of support demanded by the range of disabilities within the group. There are national organisations for specific disabilities from whom further guidance may be obtained.

- **Coaching Sessions.**
  - Where coaching and training is taking place in an organised form, coaches may provide the safety provision providing they hold an appropriate coaching qualification and the Rescue Test for Teachers and Coaches of Swimming NRASTC or RLSS UK Pool Lifeguard Qualification.

- **Swimming.**
  - **30:1** Competitive Training – Training only with very competent swimmers.
  - **20:1** Synchronised Swimming – In water in excess of 1.8m deep, the ratio should be considered in relation to swimming competence and the activity taking place. The Teacher/Coach must be able to carry out a rescue from the deepest part of the pool floor or be accompanied by the pool lifeguard.
  - **20:1** Water Polo – Training only.
i. **Aerobics In Water.**

- **30:1 Shallow Water** – Pupils may be restricted to water within which they can safely stand and all must have the ability to regain a standing position from lying in the water on their front or back.

- **20:1 Deep Water** – All participants must be water confident and either wear a buoyancy aid or be confident in terms of swimming in deep water. Teachers can adopt these measures only where they are included in the pool’s safety operating procedures and not where there is:
  
  - A wide variation in the swimming ability of the pupils.
  - Language or learning difficulties.
  - A large water area.
  - Deep water areas into which poor ability swimmers could stray and be out of their depth.
Class Management and Safety.

In the Changing Rooms
- Changing rooms should be well supervised.
- Pupils should remove sweets, chewing gum etc., from their mouths before going onto the poolside.
- Pupils should also remove jewellery; watches etc. and arrangements should be made for their safekeeping.
- Encourage pupils with long hair to tie it back or wear a swim cap.

On the Poolside.
- Count the number of pupils (register taken) before and after the activity, as well as at intervals during the activity.
- Pupils should not enter the water before being given permission.
- Pupils should notify you if they are leaving the pool for any reason and report when they are back.
- Do not allow pupils to run on the poolside.
- Do not allow them to push each other into the pool.
- Do not allow diving into shallow water (below 1.5m).
- All pool entries should be safely executed, appropriate for the depth of water and ability of the pupil, with adequate space free of other pupils.
- Ensure all pupils have understood all the safety instructions, particularly if there are problems with understanding of language.
- Ensure adequate safety/rescue equipment is in place e.g. poles, rings.
- An accessible telephone, connected to an outside line, should be available to summon the emergency services in an emergency.
- Appropriately qualified lifeguards should be present if identified in the NOP.

In the Water.
- Pupils who are non-swimmers should be contained in an area e.g. with marker ropes.
- All pupils should be tested by you in shallow water before being allowed out of there depth.
- Pushing, ducking or splashing other pupils should not be allowed.
- If lanes are used by the pupils, you must instruct them on lane etiquette.
- Additional clothing such as that used for survival swimming must be clean, not be restrictive, must be easily removed and cleared from the pool as discarded.

Supervision.
- Keep moving to ensure pupils are continuously being observed.
- Be aware of the effects of refraction and reflection of light on the water.
- You should not be in the water with a pupil unless there is adequate supervision for the rest of the pupils.
- Be the last to leave, having counted the pupils and walked around the pool to check the pool floor.

Discipline.
- Expect good behaviour for your pupils at all times.
- Signals must be understood and obeyed immediately, especially signals to stop activities and move to safety (or get out).
- Where a whistle is used to signal a safety command, it should be practiced regularly.
- Sanctions for bad behaviour can include a verbal warning, sitting out or getting dressed.
First Aid

Due to Limpsfield Grange being a residential school the operating hours vary meaning that if there is an incident in the pool a different set of procedures should be followed at different times and for different severities of incident. The following procedures should be followed according to the times given and severity of incident. There is a First Aid Kit in the pool entrance hall for minor injuries.

During school hours Monday to Friday 9.00am to 4.00pm.

➢ If there is a minor injury that can be managed by the instructor please do not use the emergency alarm but please let someone in school know there has been an accident and record it in the schools Accident Book.
➢ If it is a more serious injury and you need assistance from the school please press the Emergency Alarm Button and help will come within a couple of minutes. A decision can then be made whether Emergency Services are needed. Please record incident in the schools accident book as soon as possible.
➢ If it is a major injury and it is obvious that Emergency Services will be needed please first use the phone in the pool entrance dialling 9 first then 999 or 112 then press the Emergency Alarm Button to alert school staff. Send someone to the car park to meet the ambulance.

During out of school hours Monday to Friday 4.00pm to 9.00pm.

➢ If there is a minor injury that can be managed by the instructor please deal with it but remember to come in to school to put it in the schools Accident Book at the earliest opportunity.
➢ If it is a more serious or a major injury and it is obvious that Emergency Services will be needed please use the phone in the pool entrance dialling 9 first then 999 or 112. Send someone to the car park to meet the ambulance then using the phone again call extension 103 or 109 to inform the schools Care Staff what is happening. Please remember to come in to school to record the accident in the schools Accident Book at the earliest opportunity.

During out of school hours Saturdays and Sundays all day.

➢ If there is a minor injury that can be managed by the instructor please deal with it but remember to come in to school to put it in the schools Accident Book at the earliest opportunity.
➢ If it is a more serious or a major injury and it is obvious that Emergency Services will be needed please use the phone in the pool entrance dialling 9 first then 999 or 112. Send someone to the car park to meet the ambulance. Please remember to come in to school to record the accident in the schools Accident Book at the earliest opportunity.
Resuscitation Chart

DANGER
Ensure the scene is Safe for yourself, others and the casualty.

RESPONSE
Check response by Talk and Touch. If unresponsive shout for help.

AIRWAY
Ensure airway is Open and Clear. Check Breathing.

BREATHING
Look, Listen and Feel for normal breathing. Keep the airway open and check breathing. If not breathing normally call 999.

COMPRESSIONS
If not breathing normally start compressions. Give 30 compressions. Give 2 breaths.

DEFIBRILLATION
Attach Automated External Defibrillator (AED). If available turn on AED and follow the prompts.

ADDITIONAL COMPRESSION/BREATHING INFORMATION

<table>
<thead>
<tr>
<th>ADULT</th>
<th>CHILD</th>
<th>INFANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE 2 HANDS</td>
<td>USE 2 HANDS</td>
<td>USE 2 FINGERS</td>
</tr>
<tr>
<td>COMPRESS THE CHEST 4 - 5 CM</td>
<td>COMPRESS 1/3 CHEST DEPTH</td>
<td>COMPRESS 1/3 CHEST DEPTH</td>
</tr>
</tbody>
</table>

Give 30 compressions at a rate of 100 per minute and then give 2 breaths. Repeat 30 compressions and 2 breaths sequence.

If rescue breaths are unsuccessful you will need to clear the airway after the next cycle of compressions.

This resuscitation chart does not replace training with an accredited training organisation.

Active Publications
Email Sales@FirstAidBooks.co.uk Tel: 01908 610093
Part of the www.FirstAidCafe.co.uk group of web sites
Read the flow chart and draw pictures in the blank boxes to illustrate three important steps.

- **Make sure you and the casualty are not in danger**
  
  **Can you get a response?**
  
  **No**
  
  **Are they breathing normally?**
  > Open the airway; tilt the head back and lift the chin
  > Look, listen and feel for normal breathing
  
  **Yes**
  
  **No**
  
  If breathing normally, put them into the recovery position and keep the airway open by tilting the head back and lifting the chin.

**Call an ambulance**

- Give 5 rescue breaths to start. Open the airway. Place your mouth over their mouth and blow for one second
- Give 30 chest compressions, using one or two hands. Depress the chest by a third its depth at a rate of 100 per minute (see picture)
- Give 2 rescue breaths (see picture)
- Continue this cycle of 30 chest compressions and 2 rescue breaths until help arrives
- If you are unable or unwilling to give rescue breaths, give chest compressions only
- If you are on your own do 1 minute of CPR before going to call an ambulance.

**Note:** A child = 1 year to puberty

2 rescue breaths

30 chest compressions
Make sure you and the casualty are not in danger

Can you get a response?

No

Are they breathing normally?
> Open the airway; tilt the head back and lift the chin
> Look, listen and feel for normal breathing

Yes

30 chest compressions

No

If breathing normally, put them into the recovery position and keep the airway open by tilting the head back and lifting the chin.

Call an ambulance
> Give 30 chest compressions (see picture)
  Press down 4-5cms at a rate of 100 per minute.
> Open the airway. Pinch the person's nose. Place your mouth over their mouth and blow for one second.
  Give 2 rescue breaths (see picture).
> Continue this cycle of 30 chest compressions and 2 rescue breaths until help arrives.
> If you are unable or unwilling to give rescue breaths, give chest compressions only.
CONDITIONS OF HIRE

- All persons or their employees hiring the Swimming Pool should read the Pool Safety Operating Procedures, Normal Operating Procedures and Emergency Action Plan and run classes in accordance with the relevant sections.
- The person in charge of classes is responsible for ensuring that All doors are locked when leaving the pool and that the pool is Never left unattended and unlocked.

Hirers are asked to advise all parents in writing of the following rules:

1. Parking on site is limited and anyone parking inconsiderately, inappropriately or where it could endanger a school pupil or member of staff will be asked to move even if they are in the pool. Access must be kept clear for Emergency Vehicles.
2. Parents or children must not to access any other area of the school or grounds other than the Swimming Pool and the route to and from it.
3. Children must be supervised at all times while on site.
4. Footwear must be removed in the pool entrance hall no shoes are allowed in the changing rooms or on poolside.
5. For obvious Hygiene reasons No food may be taken into the pool building or changing rooms.
6. Only plastic drinks bottles may be taken on poolside No glass bottles or jars may be taken into the building at all. If glass gets into the pool it has to be drained and will be out of action for upto 2 weeks which will be chargeable to the club responsible.
7. Parents and children are asked to be considerate of the fact that there may be school lessons or exams taking place whilst they are crossing the playground.
8. All users must adhere to signage around the school site.
Limpsfield Grange School

Site rules

As you are probably aware Limpsfield Grange is a residential special school and as such we have vulnerable pupils who board in the main school building. The Safeguarding of our pupils is paramount when hiring out the school or its grounds we therefore have a strict set of rules and procedures that we expect everyone using the facilities to abide by. It is the responsibility of hirers to relay these rules to their customers who are expected to follow them.

Whilst we want everyone to enjoy the facilities, buildings and lovely grounds at Limpsfield Grange, we must ensure that it does not interfere with the Safety and Security of our pupils or cause disruption to the running of the school. For these reasons any breach of the school rules is taken very seriously and may result in hire contracts being terminated or individuals being asked to leave the site please ensure all users know and adhere to the following rules.

- Access to visitors is restricted to the immediate vicinity of the activity you are attending and the direct route between it and the car park.
- Visitors are not allowed to wander around the buildings or grounds.
- Visitors must not try to gain access to any other part of the buildings other than the area they are visiting.
- Children must be supervised at all times whilst on site, not left to play in the playground while siblings are swimming etc.
- There is a 10mph speed limit on the driveway and the car park.
- Cars are not permitted through the archway onto the playground.
- Please be aware that lessons are carried out in the classrooms around the playground both during the day and evening, please try to cross as quietly as possible at all times but especially when Exam notice boards are out.
- Children must not play on equipment or climb on railings etc whilst on the school site.
- Picnics in the school grounds are strictly forbidden.
- Dogs must not be brought onto the school site at all, anyone seen walking a dog will be asked to leave.
- Please park in marked bays only, all other areas need to be kept clear for emergency access and deliveries. Anyone parked outside a marked bay or being parked dangerously will be asked to move immediately even if they are in the pool.
- Parking is available in Park Road and Granville Road both of which are close to the school.
- Limpsfield Grange has a No-Smoking policy apart from the smoking area in the visitors parking bays at the end of the drive, anyone caught smoking anywhere else will be asked to leave.
➢ Please be polite but never become involved in lengthy conversations with pupils from the school, never exchange names, addresses or phone numbers with pupils.
➢ For the Safety and Security of all users of the school site a highly effective C.C.T.V. system covers the entire site, all movement is recorded and stored for up to two weeks.

Please ensure you familiarise yourself and other users with these rules.

Thank you.
Cleaning and Hygiene, School responsibilities.

To ensure the pool is pleasant to swim in it is essential that the water is kept as free from contamination as possible, the more contamination in the water the more chemicals are needed to counteract their effect. Good Cleaning and Hygiene routines are essential in keeping the pool clean and reducing the amount of chemicals used to keep it clean.

The schools Site Manger and his assistant are responsible for keeping the pool, poolside, changing rooms etc clean but can only do this with co-operation from all hirers and pool users.

The following cleaning schedule is in place to fulfil the schools duty to maintain the highest water standards.

**The Pool itself.**
The entire pool floor is cleaned every Monday morning using a manual pool hoover which sucks up sediment from the tiles, this sediment goes out to waste. On Wednesday evenings an automatic pool cleaner is put in and spends 7 hours tracking around on the pool floor again sucking up sediment and debris. This is removed and cleaned the following morning.

This routine ensures the pool bottom is kept free from sediment and debris for the majority of the week. Pool water quality is dealt with under a separate section.

**The Pool Surround (poolside).**
The pool surround is mopped and hosed down daily using just clean water. It is virtually impossible to stop cleaning products from entering the water which would have an effect on the quality of the pool water so only water is used.

**Changing Rooms and Toilet.**
The changing rooms and toilet floors are cleaned daily by mopping using Johnsons Diversey “Shield” disinfectant cleaner which dissolves grease and leaves the floor non-slippery. Walls are wiped down when needed with a weak solution of “Shield”. The toilet is cleaned daily using Johnsons Diversey 3 way toilet cleaner in the pan and Dettol disinfectant spray on the seat. Toilet pan is bleached weekly. The basin is cleaned daily using Dettol spray disinfectant.

**Entrance Hall.**
The Entrance Hall is vacuumed daily to reduce the amount of dirt taken into the pool and changing rooms.
Cleaning and Hygiene, Hirer/Customer responsibilities.

Due to the amount of use the pool at Limpsfield Grange has it is impossible to clean everything in between lessons so it is up to individual hirers to keep the poolside and changing rooms as clean as possible, and leave it tidy for the next hirer. The following is a list of rules that hirers should enforce rigorously on their customers to ensure everyone enjoys their swim.

**Hirers should insist that customers:-**

- Remove shoes/boots before entering the poolside or changing rooms.
- Please keep all pool doors closed, if they are propped open this only tells the dehumidifier to blow more heat into the building.
- Do not bring buggies/prams/pushchairs onto poolside; these must be left outside the building.
- Do not bring food including crisps, cakes, biscuits or raisins in to the poolside or changing rooms, please wait until you are out of the building before eating food.
- Everyone entering the pool should shower before and after swimming.
- Everyone entering the pool should use the toilet before swimming.
- Baby swimmers must use waterproof swimming nappies in the pool.
- Nappies must be disposed of in the grey bin in the changing room not in the general waste bin in the entrance hall.
- Do not bring dogs on to site, only guide dogs are permitted.
- Do not bring glass bottles or jars in to the building at all, if a glass bottle smashes on poolside it could result in the pool being closed for up to two weeks as it would have to be drained.
- Customers are not allowed anywhere else on site other than the pool building and the route to and from the car park.
- Customers’ children and siblings must be supervised at all times while on site, not left to play in the playground while siblings are swimming.
- **No one should enter the pool if they have had diarrhoea or sickness in the last 14 days.**
Pollution of pool water.

Treatment.
The swimming pool water must be treated with the following objectives in mind to produce:-

- A disease free environment including humidity control.
- Clear water for bathers and instructors.
- Comfort for bathers.
- To maintain the structure, plant and equipment in optimum condition through the prevention of corrosion and scale formation.

Removal of pollutants.

1. Chemical pollution:
   - In water supplied from mains or wells (CaCo$_3$).
   - From bathers: e.g. sweat, urine, faeces, cosmetics, hair lotions, face powders, lip stick etc, etc.
   - Arising from use of water treatment chemicals.

   All of this pollution is removed by diluting the pool water with fresh water and by filtration and flocculation.

2. Bacterial pollution:
   - Non-pathogenic – Harmless to humans.
   - Pathogenic – Potentially harmful – bacteria from eyes, ears, nose, throat, skin infections, sores, urine and faeces.
   - Algae i.e. small plant life.

   This form of pollution is removed by disinfection followed by filtration.

3. Physical pollution:
   - Airborne; i.e. dust, grit etc.
   - Vegetable; i.e. Grass, leaves etc.
   - From bathers; i.e. Hair, fluff, plasters, hairclips etc.

   Nets, scoops, vacuum strainers and filters are the only successful method of removing physical pollution.
Hygiene.

As with anywhere used by a large number of people, the building housing a swimming pool must be kept clean. Many of the issues that arise are common to all such public places; but because of the importance of maintaining good pool water quality there are special considerations involved.

Pre-swim Hygiene.

Historically, swimming baths in the U.K have been places where people go to get clean. In some European countries it is quite routine (sometimes compulsory) to shower before a swim. In the U.K are more likely to be seen as a means of washing off the pool water after a swim. It is ironic, of course that the Chlorine swimmers want to remove is there in such quantities in order to deal with body pollution introduced by swimmers who do not shower first.

Pre-swim showering benefits the management of the pool in 3 ways:-

- Up to two-thirds of the sweat products and a third of the bacteria are removed.
- A shower removes five times as much pollution as a footbath.
- Money is saved on chemicals, because the pool is cleaner. It would also be more pleasant to swim in due to the lack of chemicals needed to disinfect the water.

Children in particular, should be educated to use the toilets before bathing to minimise involuntary urination in the pool. Babies should only wear proper swimming nappies and should be encouraged to empty their bladders before they swim and wear costumes.
Pool Water Disinfection.

Swimming pool water must be adequately disinfected at all times to ensure that there is little risk of infection to bathers. Many bacteria and micro-organisms are introduced into the water but most of them are harmless and are normally present in healthy people, only in exceptional circumstances, or if the standard of hygiene is not maintained it is possible for certain infections to be transmitted by the pool water.

It is essential that any disinfection system used has the ability to render harmless any bacteria as it is introduced to the pool. The water in the pool must contain sufficient disinfectant to act on any pollution as it occurs. The ability to do this is generally referred to as residual disinfection e.g. "free residual chlorine".

Non-Chlorine Disinfectants.

BCDMH.

The pool at Limpsfield Grange uses Bromo-Chloro-Di-Methyl-Hydantoin. This is an organic Bromine releasing compound. It is stable and releases Bromide in a similar way to Elemental Bromine.

BCDMH is supplied in 5kg tubs as small white tablets for use in circulation feeders (brominators), which may be suitable for all types of pool.

Chemical levels.

Bromide is formed in pools using this system, although the concentrations found are not as high as those in pools using Elemental Bromine. Over the years there have been reports of skin irritation and rashes after pool water treated with BCDMH.

Accordingly, throughout the 1980’s the DoE Committee on Chemicals and Materials of Construction for Use in Public Water and Swimming Pools advised “extra vigilance” with BCDMH treated pools.

The committee confirmed its public health approval of BCDMH in 1992. It is currently recommended that:-

- Operators should aim for a total Bromine residual of between 4.0 and 6.0 m g/l
- The concentration of dimethylhydantoin (DMH) should not exceed 200mg/l.
- At present there is no poolside kit for this the test can be carried out only in a laboratory. Frequent regular backwashing of the pool filters should adequately dilute the pool water, keeping it below the maximum.
- If this backwashing does not prevent the build up of (DMH) or of Bromine, the pool may have to be partially or completely emptied.
- As with Cynauric Acid colony counts may be high.
BCDMH a Warning.

Although the DoE Committees warning about checking for irritation and rashes extends to all pool chemicals, there is considerable anecdotal evidence to suggest that this is more of a problem with BCDMH pools. It is not clear how much of this is down to bad management, high combined chlorine and Bromine residuals, or something unique to the BCDMH system – even if only its possible lower margin for error. Either way, it is recommended that operators are particularly vigilant about this, and are careful to dilute adequately.

BCDMH Characteristics and Properties.

(i) White sticks or tablets – 66% Bromine and 28% Chlorine.
(ii) Chlorine releases Bromine and the Bromine disinfectants.
(iii) Slightly lowers the P.H.
(iv) Is toxic by inhalation and will cause burns.
(v) P.H. should be between 7.2 – 7.8.

Storage.

(i) Can cause fire when in contact with flammable or combustible materials.
(ii) Store in a cool dark place.
(iii) Containers must be kept sealed.

Chemical Treatment.

Recommendations of the Pool Water Treatment Advisory Group/ISRM.

Bromo-chloro-di-methyl-hydantoin. (BCDMH).

The total active Bromine residual should be between 4.0 and 6.0mg/l. the concentration of Dimethylhydantoin should not exceed 200mg/l (N.B. this can only be tested in a laboratory.

1. Total dissolved solids – should not be more than 1000mg/l above the source water, with an absolute maximum of 3000mg/l.
2. Alkalinity should be maintained above 75mg/l and below 250mg/l.
3. P.H. should be maintained between 7.2 and 7.8.
4. Calcium hardness should be above 40mg/l to prevent grout loss.
5. Dilution at the rate of 30l per bather per day.
6. Automatic chemical dosing equipment should be used as standard.
**Water Temperature.**

The Institute for Sport and Recreational Management (I.S.R.M.) recommended maximum pool water temperatures are as follows:-

- Competitive swimming and diving, fitness swimming and training - 27 degrees C – (80.6 degrees F)
- Recreational, adult teaching, conventional main pools
  - 28 degrees C – (82.4 degrees F)
- Children’s teaching, leisure pools
  - 29 degrees C – (84.2 degrees F)
- Babies, young children, disabled and handicapped
  - 30 degrees C (86 degrees F)

The pool hall temperature must always be 1 degree higher than the water temperature to avoid bathers becoming chilled when leaving the pool and to avoid condensation on the inside walls of the building.

Due to requests from pool hirers the temperature of the water in the pool at Limpsfield Grange is kept at 32 degrees C (89.6 F). this means the inside temperature should be around 33 degrees C (91.4 degrees F).

The pool has an extremely good De-Humidification system which should maintain the temperature and keep the air and walls dry. For this to work properly it is vital that all the pool doors are kept closed as if any doors are propped open letting in cool air the De-Humidifier will just pump more warm air in thinking the building is cold.

Spectators should bring plastic bottles of water only **no glass is allowed in the building at all.**
Pool Water Testing.

- The swimming pool water is tested at least once a day using a comparator to check P.H. levels and B.C.D.M.H. (Bromine) levels. The acceptable range for P.H. is 7.2 to 7.8 with 7.4 being ideal and what we aim for at Limpsfield Grange. The acceptable range for B.C.D.M.H. is between 2 and 6 depending on the pool and usage. Due to the pool usage at Limpsfield Grange we keep the level at around 5 which ensures adequate disinfection of the water. These levels are shown on the daily chart in the pool entrance hall.

- The Alkalinity and Calcium levels of the pool water are tested weekly using the shaker bottle method. The acceptable range for Alkalinity is between 80ppm and 120ppm with 100ppm being ideal. The acceptable range for Calcium is between 250ppm and 600ppm with 300ppm being ideal.

- The Total Dissolved Solids (T.D.S.) levels are tested weekly using a digital meter. The acceptable range for T.D.S. is between 1000ppm and 1500ppm with 1200ppm being the ideal.

- All levels are recorded in the water testing log which is kept in the pool entrance hall.

- In line with best practice Micro-Bacterial testing of the pool water is carried out on a monthly basis using a specialist contractor. Results of the testing are kept in the inspections file in the Site Managers office and are available to view on request. If bacteria levels are found to be higher than recommended the Site Manager is notified immediately and will have to close the pool to everyone, possibly with very little notice. If this happens the pool will be closed and shock dosed with Chlorine granules to kill any bacteria. The pool water bacteria levels will be re-tested and assuming no bacteria is found in the re-test the pool will be opened again once chemical levels have returned to normal.

- Also in line with good practice the pool is shock dosed every Half Term to boost the efficiency of the Bromine and to kill any bacteria that may be present.
P.H. and Alkalinity.

1. What is P.H.

The pH value of water indicates whether it is acid or alkaline, or neither in which case it is said to be neutral. The pH value does not indicate how much alkalinity or acidity there is in the water but the degree of alkalinity or acidity, which means how strong or weak.

Strength is very different to quantity.

Example:
Vinegar and lemon juice are both acids but they are weak acids and a large amount of either could be poured onto the skin without any major discomfort.
On the other hand Sulphuric Acid and Hydrochloric Acid are strong acids. A drop of either would burn the skin and drinking even a spoonful would cause serious injury.

N.B. In swimming pool work it is necessary to also know the quantity of alkalinity in pool water. This is found by a different test known as the Total Alkalinity test. For practical water testing purposes pH. and Alkalinity are not the same. Acidity is the opposite of Alcalinity.

2. Why is P.H. so important.

Knowing the pH. of a fluid is important in many fields, in laundering, in boiler operation, in industrial manufacturing processes and even in gardening.
With swimming pool water keeping the correct pH. is vital.
An acid water, i.e. below pH 7, produces clearer water if the plant in use has sand filters using Alum but also acid eye irritation and even in some cases skin irritation.

As the pH. rises the time taken for Chlorine to kill bacteria lengthens, speed of killing bacteria is obviously very important and above pH 8 there is a dramatic reduction in effectiveness.

The lower the pH. value the easier Nitrogen Trichloride is formed during periods of heavy pollution. Nitrogen Trichloride (a constituent of tear gas) is a heavy, irritant, chlorine smelling gas produced as a result of Chlorine combining with ammonia which lies on the water surface and attacks bathers eyes.

3. What is the P.H. scale.

The pH. scale is a numerical scale that starts at 0 and rises to 14. At pH. 0 water is as strongly acid as it can be and at pH. 14 it is as strongly alkaline as it can be. At the halfway mark it is neither acid nor alkaline i.e. pH 7.
The Effects of P.H.

1. Make up water, (tap water), has a distinct effect on the pH:-
   i. It may have higher or lower pH than the pool. Water authorities may adjust between arrange of 6.8 to 8.4.
   ii. Quality of makeup varies with:-

   - Number of bathers. (30 litres/bather/day dilution).
   - Quantity of backwash water per filter. Dependant both on filter design and operator control.
   - Design of plant.
   - Design of pool e.g. evaporation (from pool surface and wet surrounds).

   BCDMH has little or no effect on the pH; some forms may slightly depress the pH. If the pH unbalances in the pool it is necessary to adjust the pH manually.

p.H Correction: See pool water testing below.

Pool water testing.

The quality of pool water is of utmost importance. Its quality can only be controlled by competent analysis of a number of tests taken periodically. These tests are simple to perform using test kits and tablets that are readily available from a wide network of pool companies.

If these tests are accurately undertaken, and a permanent record maintained, then analysis and corrective action can be taken to maintain water quality of the highest standard.

Regardless of the age of the pool; its circulation and filtration systems; the chemicals used in the treatment of the water; or of the use that the pool is subjected; the testing of the water is the key factor upon which the maintenance of the acceptable standards will depend.

It is a common misconception that an automatic dosing plant requires little or no attention. This is patently untrue indeed even the most sophisticated automatic system requires the same, if not more, personal management as a manually operated system does.

Under normal operating conditions the tests require are:-
   i. pH ---------------------Twice per day (am & pm).
   ii. Bromine/Chlorine---Twice per day.
   iii. Alkalinity -----------Once per week under stable conditions more often if unstable.
   iv. TDS ------------------Once per week.
   v. Temperature --------Twice per day.
   vi. Calcium Hardness ----Once per week.
Water quality control at Limpsfield Grange.

The pool water quality at Limpsfield Grange is maintained by both manual and automated processes to test and dose the pool water. The Bromine and p.H levels are monitored and dosed by a Bayrol Analyt computer controlled dosing system.

This samples the pool water and adjusts levels automatically; the levels are checked daily by the Site Manager using a manual Comparator to ensure the dosing system is working correctly.

The Bromine level is controlled from the Analyt via a solenoid valve from the Bominator which is topped up weekly.
The pH level is controlled from the Analyt via a dosing pump on top of a barrel of pre-mixed Soda Ash or pH Plus

Filtration is achieved through a 36 inch Triton TR140 sand filter which is fed by a one and a half horsepower pump via a bottom drain and 2 skimmers.
Filtration is enhanced by the use of an Aluminium Chloride Floculant which causes minute particles to stick together and become trapped in the filter media. This is dosed by a Flocdos dosing pump at a rate of 100ml per day.

All together this normally keeps the pool water at Limpsfield Grange at a very good quality level without the use of too many chemicals, this is shown in our monthly Micro Bacterial sampling which normally shows zero bacterial growth.
Swimming pool

Normal Operating Procedures
Normal Operating Procedures (NOP)

These are the normal routine day to day operations which keep the pool running and ensure the water is of good quality for swimming. A schedule of routine pool maintenance is essential for keeping all the pool equipment free from scale and in good working order. Limpsfield Grange has formulated its own schedule of routine pool maintenance which under normal circumstances maintains the pool water at the optimum values. The following procedures are carried out at set periods, some daily, weekly, monthly and annually as set out in the schedule.
Daily Bromine level testing.

The Bromine level in the pool water is monitored and adjusted constantly by the Analyt dosing system but to ensure this is operating correctly the Bromine level is tested manually by the Site Manager or his assistant. The following is how manual testing is carried out.

- First take 3 glass test vials and rinse with water from the Analyt testing point.
- Fill 2 vials to the 10ml line with water from the testing point.
- Place one vial into the left hand slot in the comparator.
- Pour a small amount of water from the second vial into the third vial.
- Add a DPD number 1 tablet to the vial with the small amount of water in and crush tablet using the white crushing stick, pour the rest of the water into vial with tablet in, shake well then place vial in the right hand slot in the comparator.
- Ensure Bromine testing disc is placed in the comparator.
- Hold comparator up to light turning the Bromine disk until the colours match.
- When colours match look through hole in comparator and read number.
- This number is the level of Bromine in the pool water and should be between 2 and 6, optimum is 5.
- Rinse vials out under water in the sink.
- Go to pool and write Bromine level up on the daily testing sheet in the pool entrance and in the testing log.

Finished
Daily P.H level testing.

The P.H level in the pool water is monitored and adjusted constantly by the Analyt dosing system but to ensure this is operating correctly the P.H level is tested manually by the Site Manager or his assistant. The following is how manual testing is carried out.

- First take 2 glass test vials and rinse with water from the Analyt testing point.
- Fill both vials to the 10ml line with water from the testing point.
- Place one vial in the left hand slot in the comparator.
- Add 1 Phenol red tablet to the second vial and shake well.
- Place the second vial in the right hand slot in the comparator.
- Ensure P.H testing disc is in the comparator and turn it until the colours match.
- Look through the hole in the comparator and read the numbers which should be between 7.2 and 7.8, 7.4 being optimum.
- Take note of number.
- Rinse vials under water in sink.
- Go to pool and write P.H Level up on testing sheet in the pool entrance and in the testing log.

Finished
Procedures for daily Filter Backwashing.

Due to the amount of use the pool gets and the size of pipework and filter plus the use of a liquid floculant the swimming pool at Limpsfield Grange needs its filter backwashing every day. The filter is backwashed every evening after swimming has finished so that any bacteria disturbed by the backwashing is killed by the Bromine overnight. The following is how backwashing is carried out:-

- First close the 2 heat exchanger isolation valves, red handles quarter turn clockwise, vertical to horizontal.
- Turn off main pool circulation pump, red button on beige box, marked.
- Open red valve on filter waste pipe, quarter turn clockwise, horizontal to vertical.
- Push down and turn multiport valve lever clockwise half a turn to backwash position.
- Press green button on beige box to start pump, water in Perspex dome will go cloudy.
- When water turns clear, normally 3 to 4 minutes, turn pump off again and push down and turn multiport lever clockwise to rinse position.
- Turn on pump and rinse for 20 seconds.
- Turn off pump and push down and turn multiport lever clockwise back to filter position.
- Close filter waste valve quarter turn anti clockwise, vertical to horizontal.
- Turn pump back on.
- Open heat exchanger isolators, quarter turn anti clockwise, vertical to horizontal.

Finished.
Procedures for filling up the Brominator.

The Brominator is a container which holds the Bromine tablets that disinfects the pool water. The pool water flows through the Brominator via an electronic solenoid operated valve which is controlled by the Analyt dosing system. The valve opens when the level is below the setpoint and closes when it goes above it. The Brominator has to be re-filled with a 5kg bucket of Bromine tablets once a week. The following is how to re-fill the Brominator:-

- Close heat exchanger isolators, red levers quarter turn clockwise, vertical to horizontal.
- Put on protective clothing, respirator, goggles and rubber gloves.
- Unscrew lid clamp on top of Brominator, remove clamp and lid.
- Remove lid and bag seal from Bromine bucket.
- Carefully tip bucket on edge next to the Brominator opening placing the open neck of the bag into the opening.
- Carefully continue to tip bucket up so that the tablets start to fall into the Brominator ensuring that the plastic bag stays within the opening to stop splashing onto skin or clothes.
- Once bag is empty place it in the Bromine bucket and replace Brominator lid and clamp ensuring clamp is screwed down tight.
- Open heat exchanger isolators, red levers quarter turn anti-clockwise, horizontal to vertical.
- While still wearing protective clothing take Bromine bucket and bag to pool and wash both out in pool water thoroughly.
- Dispose of bucket and bag in red waste bins.

Finished.
**Procedures for topping up the P.H plus barrel.**

Due to the incoming mains water at Limpsfield Grange normally having a p.H of 7.0 the pool water p.H has to be raised to the optimum of 7.4. The use of Bromine as a disinfectant also has the effect of lowering the p.H so it is important that the p.H level is constantly monitored and adjusted accordingly.

P.H Plus (Soda Ash) is used to raise the p.H of the pool water, this is a powder which is mixed with water to form a liquid. The liquid is then poured into the p.H dosing barrel and is pumped into the pool water system via a pump controlled by the Analyt dosing system.

The following procedures are how to top up the p.H dosing barrel:-

- Fill black bucket three quarters full with water from the hose.
- Take red measuring scoop and fill with p.H plus powder and add to the water.
- Mix well with metal mixing rod until liquid is almost clear.
- Remove lid of p.H barrel and tip liquid carefully into barrel.
- Repeat until barrel is filled to top and replace lid.
- Rinse out bucket.

**Finished.**
Procedures for manual hoovering of the pool.

After a few days use the bottom of the pool gets covered in sediment and dirt which can lead to bacterial problems as well as not looking good. The pool bottom is hoovered manually once a week and also hoovered automatically once a week to remove all the sediment and dirt that accumulates there.

The following is how to hoover the pool manually:

- Close heat exchanger isolators in pool plant room, red handles quarter turn clockwise, vertical to horizontal, return to pool.
- Connect hoover head to pole and submerge hoover head on bottom of pool.
- Starting at end nearest hoover head submerge entire length of hoover hose in the pool water ensuring the whole hose is full of water.
- Remove hoover pipe bung halfway along left hand side of pool, screw pipe hosetail into opening and push hose onto hosetail end.
- Return to plant room. Open hoover valve, close skimmer and sump drain valves slowly.
- Turn off pool circulation pump (red button on beige box).
- Open filter waste valve (red valve on waste pipe) press down and turn multiport valve lever clockwise one position to waste and re-start pump.
- Return to pool and slowly hoover entire pool bottom in a methodical way ensuring sediment is sucked up by the hoover and not spread around the pool.
- When finished return to pool plant room and open the skimmer and sump drain valves, close hoover valve and turn off pump.
- Press down and turn multiport valve lever clockwise right back to the filter position. Turn on pump.
- Return to pool and remove pipe from hosetail, remove hosetail from opening and replace bung back into opening.
- Remove hoover head and pipe from pool, disconnect head from pole and roll up pipe, replace in store room.
- Return to plant room and open heat exchanger isolators, red levers quarter turn anti-clockwise, horizontal to vertical.

Finished.
Procedures for automatic hoovering of pool.

After a few days use the bottom of the pool gets covered in sediment and dirt which can lead to bacterial problems as well as not looking good.
The pool bottom is hoovered manually once a week and also hoovered automatically once a week to remove all the sediment and dirt that accumulates there. Limpsfield Grange now has a robotic pool hoover which is dropped into the pool once a week on a Wednesday evening and spends 7 hours roaming around on the pool floor sucking up sediment and dirt.
The following is how to hoover the pool automatically:-

- Remove automatic pool hoover from pool store room and take to shallow end of pool.
- With the pool cover on submerge hoover ensuring all air is out of body so that it sinks to the pool bottom.
- Unwind hoover power cable ensuring all coils are un-twisted, stretch cable out along the poolside.
- Take end of cable into pool store room and plug into hoover trolley.
- Walk along poolside tucking cable under pool cover as you go.
- Leave several meters of cable on poolside at the deep end as hoover will pull this into pool, ensure cable cannot get hooked up on anything.
- Return to pool store and switch power on at the socket.
- Press blue button on top of power supply on trolley and watch hoover start up.
  Shut doors, turn off lights and leave until morning.
- Following morning, turn off hoover power at the socket, remove hoover from pool by gently pulling it by the power cable to the surface then lifting out by its handle.
- Turn hoover onto its side and remove base plate and filter bag from underneath.
- Turn filter bag inside out and wash with hose in showers, ensure all dirt and sediment is removed from filter bag (periodically wash bag in washing machine).
- Once clean turn bag outside in and replace onto base plate ensuring bag and clips stay in place when re-fitting into hoover.
- Replace the hoover onto the hoover trolley, untangle power cable and coil up onto the trolley handle.

Finished.
Cleaning of pool filters.

There are four different filters on the pool system all of which have to be cleaned on a regular basis to ensure correct water flow and correct dosing of pool water. These are the procedures for cleaning the filters:-

- **Skimmer baskets.** These are situated in the pool building on poolside at the deep end.
  - Remove 2 screws from round white skimmer cover, remove cover.
  - Lift out skimmer basket from skimmer.
  - Remove debris from basket, rinse in pool water.
  - Replace basket, skimmer cover and screws and place debris in bin.

- **Main Sand Filter.** Backwashing is covered in detail under its own heading.
  - Filter media (sand and shingle) is changed roughly every 4 years by specialist contractors.

- **Main Pool Circulation Pump filter basket.** This is the pump that circulates the pool water around the pool, through the main sand filter, through the heat exchangers and dosing system and back to the pool.
  - Close heat exchanger isolators, red lever quarter turn clockwise, vertical to horizontal.
  - Turn off main pool pump, red button on beige box.
  - Close Hoover, Skimmer and sump valves, red valves behind pump, quarter turn clockwise.
  - Close return to pool valve, red valve on return pipe.
  - Remove lid from pump filter basket, lift filter basket from chamber.
  - Remove debris from filter basket and rinse under tap.
  - Replace basket into chamber, replace lid ensuring large rubber O ring is fitted in groove, turn lid clockwise to lock in place.
  - Open Hoover, Skimmer, Sump and return to pool valves and switch pump back on.
  - Open heat exchanger isolators, red levers quarter turn anti-clockwise, horizontal to vertical.

- **Analyst Dosing System Filter.** This filter is very important as it allows the dosing system to operate properly.
  - Turn off the 2 grey valves on the dosing system pipework.
  - Unscrew the clear Perspex filter bowl and remove the filter by pulling down.
  - Unscrew blue filter body and remove screen. Rinse screen and filter body under tap.
  - Replace screen onto filter body, screw back together and push back up onto housing. Replace Perspex filter bowl and open grey valves.
Procedures for Shock Dosing.

Periodically the swimming pool needs Shock Dosing with Chlorine granules to rejuvenate the Bromine and to kill any bacteria that may be forming. The pool at Limpsfield Grange is Shock Dosed every Half Term if it is not in use, this ensures the Bromine remains effective and enables the Site Manger to give the pool a really good clean inside and out.

The following are the procedures for Shock Dosing:

- Take one black bucket from the pool plant room to the pool.
- Uncover pool.
- Put on protective clothing, rubber gloves, goggles and respirator.
- Fill the bucket three quarters full with pool water.
- Add 3 blue scoops of Chlorine granules to the bucket and mix carefully with wooden mixing stick making sure you do not splash yourself or clothing with the liquid.
- Once the granules have dissolved take bucket to shallow end and carefully tip into pool across the width of the shallow end.
- There will be some un-dissolved granules in the bottom of the bucket, fill the bucket with water again and mix until they have dissolved.
- Repeat process of tipping them across the width of the shallow end then rinse bucket in pool water.
- Wait a while then check Analyt dosing system to ensure Bromine level is higher than normal and that it has gone into high Bromine alarm mode.
- Do a manual Bromine test to ensure level is over the 10 maximum level.
- Leave pool uncovered.
- Following day use pole and brush to scrub entire interior of pool, walls and floor. Leave hose running to fill pool to top.
- Following day once sediment has settled manually hoover pool bottom, this may need doing again the following day according to the amount of sediment.
- Keep backwashing and topping up pool until Bromine level is down to normal.

Finished.
## Maintenance Schedule.

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Annually</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backwashing.</td>
<td>Top up p.H plus barrel.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check levels of chemicals in containers.</td>
<td>Clean filters.</td>
<td><strong>Half Termly</strong> Shock Dosing and scrubbing.</td>
<td></td>
</tr>
<tr>
<td>Check on all equipment.</td>
<td>Hoovering, manually Mondays, Automatically Wednesday nights.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wash down poolside and changing rooms.</td>
<td>Check flocdos nozzle.</td>
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Swimming pool

Emergency Action Plan (EAP)
EMERGENCY ACTION PLAN (EAP)

THESE ARE THE PROCEDURES THAT SHOULD BE FOLLOWED IN THE EVENT OF AN EMERGENCY. THEY SHOULD BE READ AND LEARNT BY ALL PERSONS IN CHARGE OF CLASSES USING THE POOL.

THERE ARE TWO SETS OF PROCEDURES, ONE FOR USE DURING SCHOOL HOURS (8.00am to 5pm Mon-Fri)

And a second set for use

Out of school hours (Evenings and weekends).

Please ensure you read them and familiarise yourself with the procedures.
FIRE PRECAUTIONS.

THERE IS NOT A FIRE ALARM SOUNDER IN THE SWIMMING POOL AREA TO AVOID SWIMMERS HAVING TO EVACUATE THE POOL DURING FALSE ALARMS. THERE IS A SOUNDER JUST OUTSIDE THE BUILDING AND IF THIS SOUNDS FOR MORE THAN A FEW SECONDS THE FOLLOWING ACTIONS MUST BE TAKEN:-

- INSTRUCTORS SHOULD GET ALL SWIMMERS OUT OF THE POOL AND ONTO POOLSIDE CALMLY AND ENSURE THEY ARE READY TO EVACUATE THE BUILDING IF NECESSARY. SWIMMERS MUST NOT BE ALLOWED BACK INTO THE WATER UNTIL GIVEN THE ALL CLEAR FROM THE SCHOOL. IT IS A GOOD IDEA FOR PARENTS TO KEEP A TOWEL READY ON POOLSIDE IN THE EVENT OF THIS HAPPENING. DO NOT ALLOW SWIMMERS TO GET CHANGED OR GO TO THE CHANGING ROOMS TO GET THEIR BAGS, THEY MUST BE READY TO LEAVE IMMEDIATELY. THE INSTRUCTOR MUST CHECK CHANGING ROOMS AND TOILET TO ENSURE ALL PERSONS ARE ACCOUNTED FOR.
- NO ONE SHOULD BE ALLOWED TO LEAVE THE POOL BUILDING.
- SOMEONE FROM THE SCHOOL WILL COME AND TELL THE INSTRUCTOR WHETHER THE ALARM IS A FALSE ALARM, A FIRE DRILL OR A REAL FIRE.
- IN THE EVENT OF A FALSE ALARM OR FIRE DRILL SWIMMERS MAY GET BACK INTO THE POOL AND CONTINUE LESSONS.
- IN THE EVENT OF A REAL FIRE THE MEMBER OF STAFF FROM THE SCHOOL WILL TAKE CHARGE AND LEAD EVERYONE OUT OF THE EMERGENCY EXIT AT THE FAR END OF THE POOL BUILDING TO THE FIRE ASSEMBLY POINT AT THE FAR SIDE OF THE CAR PARK.
- THE FIRST AID CASE IN THE POOL ENTRANCE HALL CONTAINING EMERGENCY BLANKETS MUST BE TAKEN WHEN EVACUATING THE BUILDING AND BLANKETS DISTRIBUTED UPON ARRIVAL AT THE FIRE ASSEMBLY POINT.
- ONCE GIVEN THE ALL CLEAR SWIMMERS MAY RETURN TO THE POOL.
- IN THE EVENT OF A FIRE IN THE POOL BUILDING THE EMERGENCY BUTTON ON POOLSIDE MUST BE PRESSED AND SWIMMERS EVACUATED IMMEDIATELY TO THE FIRE ASSEMBLY POINT IN THE CAR PARK WHERE SCHOOL STAFF WILL TAKE OVER.
- IN THE EVENT OF A FIRE DURING THE EVENING OR AT THE WEEKEND EMERGENCY SERVICES MUST BE CALLED IMMEDIATELY ON THE PHONE IN THE ENTRANCE HALL DIALLING 9 FIRST THEN 999 OR 112 OR FROM A MOBILE PHONE ONCE THE BUILDING IS EVACUATED.
Diarrhoea in the pool.

In the event of a child/adult contaminating the pool with diarrhoea, evacuate the pool quickly but calmly and call the Site Manager as soon as everyone is safely out. Ensure everyone who was in the pool showers well in case of contamination. Once showered send all swimmers home/back to school as the pool will be out of use for a minimum of 36 hours.

The Site Manager will:-

- Raise Bromine levels to 10mg per litre of water.
- Vacuum and sweep the pool bottom.
- Ensure flocculation is maintained throughout the treatment period.
- Leave pool filtering for at least 6 turnover periods (approximately 36hrs).
- At the end of the 6 turnover periods backwash the pool well to manufacturers recommendations.
- After the treatment period check Bromine and pH levels and once correct the pool can be re-opened.

TO AVOID POOL CLOSURES CLUBS/INSTRUCTORS SHOULD INFORM PARENTS OF SWIMMERS THAT ANY CHILD/ADULT THAT HAS SUFFERED FROM DIARRHOEA IN THE PAST 14 DAYS MUST NOT BE ALLOWED TO SWIM.

ALL SWIMMERS ESPECIALLY CHILDREN SHOULD SHOWER AND USE THE TOILET BEFORE ENTERING THE POOL.

SPECIAL CARE SHOULD BE TAKEN WHERE BABIES ARE CONCERNED THAT PROPER SWIM NAPPIES ARE USED AND THAT THEY FIT Tightly AROUND THE LEGS AND WAIST.

PLEASE REMEMBER POOL CLOSURES WILL AFFECT OTHER POOL USERS SO MUST BE AVOIDED.
Emergency Measures
Blood, Solids or Vomit in the pool.

Instructor actions during school hours 8.00am to 5.00pm:-

- Evacuate the pool quickly but calmly and call the Site Manager as soon as everyone is out of the pool.
- Try to remove any solids from the pool as quickly as possible.
- Depending on amount of contamination the Site Manager will decide whether swimming can continue.
- Ensure all swimmers shower well before re-entering the pool or leaving the building.

Instructor actions outside school hours 5.00pm to 8am and weekends:-

- Evacuate the pool quickly but calmly.
- Attempt to call the Site Manager or school on the phone in the pool entrance hall but if no one answers:-
- Try to remove any solids with a net as quickly as possible.
- It will be the responsibility of the instructor to decide whether the session can continue.
- Leave a note for the Site Manager stating problem and actions taken. Inform the school at the earliest opportunity.

Site Manager actions:-

- Ensure pool is clear of swimmers.
- Remove any solids.
- Check Bromine level and raise according to level of contamination.
- Check p.H level.
- Decide according to level of contamination whether pool can be re-opened
- If not vacuum and backwash filter.

Instructors are reminded that no one should enter the pool if they have had sickness or diarrhoea in the past 14 days. If the pool is contaminated with diarrhoea it will be closed for 2 days to allow for disinfection.
Proper tight fitting swimming nappies must be worn to avoid contamination of the water.
Contamination of the pool water will result in closure of the pool causing great disruption to clubs so please be vigilant.
Emergency Procedures
Blood Spillage on Poolside.

In the event of a spillage of blood on poolside the following procedures must be followed:

**Teachers instructions during school hours 8.00am to 5.00pm:**

- Keep other swimmers away from the blood.
- Avoid letting blood spill into the pool water.
- Call school reception on the phone in the pool entrance.
- Using rubber gloves cover blood with paper towels or cloth to soak blood up.
- Leave for the pool manager to deal with.

**Teachers actions out of school hours, 5.00pm to 8.00am and weekends:**

- Keep other swimmers away from the blood.
- Avoid letting blood spill into the pool water.
- Using rubber gloves cover blood with paper towels or cloth to soak up blood.
- Using rubber gloves put contaminated towels into a plastic bag and dispose of in the grey nappy bin.
- Using mop and bucket from pool plant room together with some disinfectant cleaner to mop area down, then hose down carefully into drainage channel.

**Pool Manager instructions:**

- Keep swimmers away from blood.
- Avoid letting blood spill into the pool water.
- Using rubber gloves cover the blood with paper towels or cloth to soak up blood.
- Using rubber gloves put contaminated towels into a plastic bag and dispose of in the grey nappy bin.
- Using mop and bucket from pool plant room together with some disinfectant cleaner to mop area down, then hose down carefully into drainage channel.

The grey nappy bin in the changing rooms is emptied weekly by specialist contractors who take the waste away to be incinerated.

Rubber gloves should always be worn when dealing with blood or body fluids.

Any accidents must be reported to the school and recorded in the accident book at the earliest opportunity.
Emergency Procedures
During school hours

For any Emergency such as:-

- Serious injury to a bather.
- Choking.
- Heart Attack.
- Epileptic Seizure.
- Any other condition that could endanger life.

The person in charge of the class should:-

- Clear the pool immediately.
- Press the emergency button located at the side of the pool, or instruct someone else to while the person in charge deals with the emergency.
- Use the phone in the pool entrance or a mobile phone to call emergency services by dialling 9 followed by 999 or 112, or ask someone else to while person in charge deals with the emergency.
- Perform First Aid – resuscitation until help arrives.

For any Emergency where all pool users may be in danger such as:-

- Fire
- Emission of toxic gases.
- Lighting failures.
- Structural failures.
- Bomb threat.

The person in charge of the class should:-

- Clear the pool immediately.
- Press the emergency button located at the side of the pool, or instruct someone else to while the person in charge deals with the emergency.
- Use the phone in the pool entrance or a mobile phone to call emergency services by dialling 9 followed by 999 or 112, or ask someone else to while person in charge deals with the emergency.
- Evacuate pool building via the emergency exit quietly and calmly ensuring all persons are out of the building.
- Proceed to fire assembly point in car park and await help.
Emergency Procedures

Outside school hours

Procedures for teachers.

For any Emergency such as:-

➢ Serious injury to a bather.
➢ Choking.
➢ Heart Attack.
➢ Epileptic Seizure.
➢ Any other condition that could endanger life.

The person in charge of the class should:-

➢ Clear the pool immediately.
➢ Use the phone in the pool entrance to call emergency services by dialling 9 followed by 999 or 112, or ask someone else to while person in charge deals with the emergency.
➢ Perform First Aid – resuscitation until help arrives.
➢ Inform the school of any incidents/accidents at the earliest opportunity.

For any Emergency where all pool users may be in danger such as:-

➢ Fire
➢ Emission of toxic gases.
➢ Lighting failures.
➢ Structural failures.
➢ Bomb threat.

The person in charge of the class should:-

➢ Clear the pool immediately.
➢ Use the phone in the pool entrance or a mobile phone to call emergency services by dialling **9 followed by 999 or 112**, or ask someone else to while person in charge deals with the emergency.
➢ Evacuate pool building via the emergency exit quietly and calmly ensuring all persons are out of the building.
➢ Proceed to fire assembly point in car park and await help.
➢ Inform the school of any incidents/accidents at the earliest opportunity.

Instructors should note that two members of staff live on site and may be available to help in an emergency.
Enjoy your swim
At
Limpsfield Grange