

It is recommended that bacterial testing of pool water be undertaken monthly to quarterly depending on risk level of the pool. Samples should be submitted to a NATA accredited laboratory for analysis.

Record keeping

Records **must** be kept for at least 6 months.

Pool Disinfection

All pool chemicals used as biocides **must** be registered with the Australian Pesticides and Veterinary Medicine Authority (APVMA). <http://apvma.gov.au/>

Superchlorination and shock dosing

Regular superchlorination should be performed to remove chloramines and to provide extra disinfection to prevent the growth of bacteria and other microorganisms. Hyperchlorination (or shock dosing) needs to be performed to kill *Cryptosporidium* oocysts. Hyperchlorination should be performed by a pool specialist.

Ultra-Fine Filtration (UFF)

UFF is capable of removing *Cryptosporidium* oocysts. These filters are recommended for use in pools used by toddlers.

Storage and handling of chemicals

SafeWork NSW regulates the work, health and safety requirements for the storage and handling of swimming pool and spa pool chemicals.

Notification requirements:

Is your public pool notified with the local council?

Public swimming pools and spa pools **must** be notified to the local council and all notification details **must** be correct and up to date. The notification form is available on our web page at <http://www.health.nsw.gov.au/environment/publicpools/Documents/form-c19-notification-of-pool.pdf>

Bather hygiene

To prevent the transmission of disease, patrons should be encouraged to:

- Not swim if they have had diarrhoea in the past two weeks
- Ensure children use a toilet before entering a pool and take regular toilet breaks
- Shower and wash thoroughly with soap before entering the pool
- Ensure infants who are not toilet trained wear tight fitting waterproof swim nappies and be restricted to swimming in a toddlers pool
- Avoid swallowing pool water

Resources, such as the 'Steps to Healthy Swimming' poster and 'Accident Response Plans' are available from the NSW Health website, www.health.nsw.gov.au

Further information

Contact your local council or public health unit (1300 066 055) for additional information on the health requirements for public swimming pools

NSW Health information:

www.health.nsw.gov.au/environment/skinpenetration/Pages/default.aspx



SHPN (EH) 160024

Public Swimming Pool & Spa Pool Requirements

A short guide for operators of public swimming pools



Health

Public Swimming Pool & Spa Pool Requirements

Public swimming pools (which include spa pools, water slides, water play areas and pools within motels, and gyms) **MUST** comply with the following standards:

1. Public swimming pools and spas **must** not be used unless the water in the pool is disinfected in such a way as to minimise the transmission of disease to the other users of the pool; and

2. The pool surrounds, including any toilets or change rooms, **must** be kept clean and in such condition as to minimise the transmission of disease.

Section 36 of the Public Health Act 2010 Maximum penalty: \$11,000 and/or 6 months imprisonment

It is a defence if the operator of a public pool can demonstrate that the pool was being maintained in accordance with the standards detailed in Schedule 1 of the *Public Health Regulation 2012*.

The information in this brochure is aimed to assist pool operators comply with the NSW standards and maintain clean and healthy pools.

Operational control and management

Management strategies and policies, consistent with the NSW Health Public Swimming Pool and Spa Pool Advisory Document, should be developed to suit individual pools.

Topics to be considered should include:

- maximum bather load
- bather hygiene
- accident response
- circulation and filtration
- disinfection
- backwashing and super chlorination
- water quality sampling
- light and ventilation
- cleaning and maintenance
- storage and handling of chemicals

Disinfection standards

A pool **must** be disinfected with chlorine or bromine and **must** have an automated or continuous metered disinfection system.

Chemical water sampling

The chemical criteria of the swimming pool water quality **must** be in compliance with Table 1 or Table 2 depending on chemical application.

Non-automatic continuously dosed public pools:

Disinfectant and pH **must** be manually tested at least once per day – prior to opening of the pool.

Automatically dosed public pools: Disinfectant and pH **must** be recorded prior to opening of the pool and once during the day. Additionally, the pool **must** be manually tested at least once per day.

More frequent testing **MUST** be carried out, if necessary (e.g. for pools that have: (i) high bather loads; (ii) extended opening hours; (iii) shallow depth; and where sunlight is excessive).

NB: MUST requirements are mandatory

Table 1. Chemical criteria for chlorine based pools

PARAMETER	SITUATION	CONCENTRATION
Free Available Chlorine (FAC)	Outdoor pool	Min 1.0 mg/L
	Outdoor pool + Cyanuric acid	Min 3.0 mg/L
	Indoor pool	2.0 mg/L
	Spa pool	Min 2.0 mg/L
	Any pool where pH > 7.6	*Raise FAC by 1.0 mg/L
Oxidation Reduction Potential (ORP)	Any pool	Min 720 mV
Combined Chlorine	Any pool	Max 1.0 mg/L
Total Chlorine	Any pool	Max 10.0 mg/L
pH	Any pool	7.0- 7.8
Total Alkalinity	Any pool	80-200 mg/L
Cyanuric Acid	Outdoor pool only. (Not permitted in spas)	Max 50 mg/L
Ozone	Any pool	Zero

Table 2. Chemical criteria for bromine based pools

PARAMETER	SITUATION	CONCENTRATION
Bromine	Outdoor pool	Min 2.25 mg/L
	Indoor pool	Min 4.5 mg/L
	Spa pool	Min 4.5 mg/L
	Any pool	Max 9.0 mg/L
pH	Any pool	7.0 – 8.0
Total Alkalinity	Any pool	80-200 mg/L
Cyanuric Acid	Any pool	None – no benefit
Oxidation Reduction Potential	Any pool	Min 700 mV

*ORP is a good measure of disinfection effectiveness, however problems will arise if poor quality equipment is installed and/or if they are not regularly serviced.

Water sampling location

Water samples, apart from ozone, should be taken from a depth of 450mm in a location near outlets, gutters or returns. Ozone should be sampled a depth of 450mm near inlets.

Microbiological water sampling

The recommended microbiological criteria for a public swimming pool or spa pool is detailed in Table 3.

Table 3. Microbiological criteria

TEST	CRITERION
Test	Criterion
Heterotrophic plate count	< 100cfu / 100 mL of water sample
Escherichia coli (E.coli)	< 1cfu / 100 mL of water sample
<i>Pseudomonas aeruginosa</i>	< 1cfu / 100 mL of water sample