



Swimming pool safety guidelines

Fourth edition

April 2010





Further information

For more specific information about pool safety requirements, contact your local council or a private building certifier.

To have your swimming pool fence inspected contact your local council.

Copies of Queensland building legislation can be obtained by visiting www.legislation.qld.gov.au or by contacting:

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Part 1: Introduction

1.1 Background

Residential swimming pools should be safe places for families to relax and have fun. Tragically, young children drown in Queensland swimming pools every year and many more suffer serious injuries as a result of near-drowning incidents. Many of these incidents could be prevented by providing adequate pool fencing. The Queensland Government is committed to making pool safety legislation as strong as it can be.

Current legislation was introduced to reduce incidences of young child drownings and the risk of injury to young children. All pool owners must comply to the legislation including those without young children, as children may visit their property with or without permission.

1.2 Swimming pools covered by the legislation

The legislation applies only to outdoor swimming pools on residential land. It generally requires that fencing enclose a pool to prevent unsupervised access by young children.

Portable wading pools do not need to be fenced if they hold no more than 2000 litres of water that is less than 450 mm deep and have no filtration system. All other portable wading pools require a fence. Indoor pools that are completely enclosed by the walls of a building are also excluded from pool fencing laws.

1.3 Why the state regulates residential swimming pool fencing

In Queensland, drowning accounts for one-quarter of paediatric injury deaths and is the most common cause of traumatic death in children aged under five years. Around half of the children under five who drown in Queensland do so in residential swimming pools.

Is is estimated that 50 young children present to emergency departments each year due to immersion injuries, some of whom will suffer permanent brain damage.

In the 16 years from 1991 to 2007, 93 children drowned in residential inground and above-ground swimming pools in Queensland. That equates to an average of around five drownings each year.

According to the Commission for Young Children and Young People and Child Guardian, drowning is the leading cause of death in Queensland for children aged one to four, at 5.2 per 100 000, including 4 per 100 000 in swimming pools. Transport-related deaths occur at a rate of 3.8 per 100 000 for children aged one to four and other deaths from poisons and animals at a rate of 3.1 per 100 000 for children aged one to four.

The pool fencing legislation introduced in 1991 has been instrumental in reducing deaths in young children, despite pool numbers doubling since the laws were introduced. It has been estimated that at least 70 drowning deaths in young children may have been prevented by the introduction of the pool fencing legislation. Nevertheless, a significant number of children are still drowning in swimming pools. Most of these drownings occur in unfenced pools or in pools with defective fencing.

1.4 Legal obligations of pool owners

Pool safety laws require pool owners to construct and maintain a fence around their swimming pool regardless of when the pool was installed. For in-ground pools, the pool owner is generally the owner of the land. If a person renting a property buys a portable pool that requires fencing, they are considered to be the pool owner and must ensure the pool is fenced.

Before a pool is filled with water to a depth of 300 mm or more, the fencing must comply with the pool fencing standards and a building certifier must inspect the pool and its fencing and issue the owner with a final certificate.

If a substantial portion of a pool fence is demolished or removed, it must be replaced with a new fence. The new fence must comply with current pool fencing standards and not the standard that applied when the original fence was built. If a substantial portion of a pool fence is in such a state of disrepair that it cannot be practicably repaired, it must be replaced with a new fence that complies with current pool fencing standards. If only a small part of the existing fence is in a state of disrepair, it may be repaired to the same standard that applied to the existing fence.

If pool owners are unsure if their pool fence complies, they should contact their local council. Penalties of up to \$16 500, and on-the-spot fines of up to \$700, may be imposed for noncompliant pool fences.



1.5 Exemptions to pool fencing standards

Local councils can grant exemptions to pool fencing standards. Circumstances for exemptions are limited.

Since 1 October 2003, a person can only apply to the local council for an exemption from the requirements for swimming pool fencing where it would not be practicable to provide access in accordance with the pool fencing standards because of a disability of an occupant of the building. If the need for the exemption ceases to exist, for example if the person with a disability no longer occupies the premises, it is mandatory for pool fencing to be reinstated, fully compliant with the nominated standard.

For example, a person with a mobility disability may apply for an exemption to allow a pool gate to open towards the pool area—rather than away from the pool as required by the pool fence standard—to facilitate access into the pool area. If an exemption is granted, the local council may impose any conditions it considers appropriate to prevent a young child gaining access to the pool area unsupervised.

1.6 Terms and abbreviations used in the guidelines

Class 1 building—houses, townhouses, villas, units and duplex buildings

Class 2 building—buildings containing separate, self-contained units located above or below other units and highrise apartment buildings (not motels or hotels) **Class 10 building**—garden sheds, garages and storage sheds

Existing building—class 1 or 2 buildings for which approval to construct was obtained under the *Building Act 1975* before 1 April 1992

Existing swimming pool—outdoor swimming pools where:

- (a) the construction or installation of the pool started before 1 February 1991, or
- (b) approval to construct or install was given under the *Building Act* 1975 before 1 February 1991.

Fencing standards—for outdoor swimming pools on residential land

- (a) for a pool constructed before 1 October 2003—the requirements prescribed by the legislation which was applicable at the time the swimming pool was constructed
- (b) for a pool constructed on or after 1 October 2003—the standards prescribed by section 14 of the Building Regulation 2006.

However, if on 1 October 2003, an existing outdoor swimming pool on residential land was not fenced, or the fencing did not comply substantially with fencing standards (a), the fencing standards for the pool are those prescribed under (b).

Indoor swimming pool

 (a) Before 30 September 2003—a swimming pool wholly enclosed by the walls of a building, or on a building

- (b) From 1 October 2003 to 30 August 2006—a swimming pool completely enclosed by the walls of a building
- (c) After 1 September 2006—a swimming pool completely enclosed by the walls of a building or a swimming pool on a deck or roof top of a building if the pool is under the usual ways of entering or leaving the building, or only accessible from the inside of the building.

Outdoor swimming pool—swimming pools other than indoor swimming pools

Pool owner—the owner of the residential land on which there is an outdoor swimming pool. However, if a non-owner occupant of the land on which an outdoor swimming pool is situated is the owner of the pool, the occupier, and not the land owner, is the pool owner.

Portable wading pool—a pool that:

- (a) is capable of being filled with water to a depth of no more than 450 mm and
- (b) has a volume of no more than 2000 litres
- (c) has no filtration system.

Protected opening

- (a) A door
 - (i) fitted with a self-closing and self-latching device complying with the standards prescribed under the Standard Building Law
 - (ii) with no footholds more than 100 mm above the floor

- (iii) with the latching mechanism not less than 1500 mm above the floor
- (iv) that does not swing into the fenced area around the pool.
- (b) a window
 - enclosed by grilles, or fixed in such a way that will not allow a round bar of 105 mm to pass through
 - (ii) that has its lowest opening panel located at least 1200 mm above the floor and no footholds more than 100 mm above the floor.

Residential land—land on which a class 1 or 2 building is constructed, or is to be constructed, and includes land

- (a) adjacent to the land
- (b) in the same ownership as the land
- (c) used in association with the land.

Resuscitation sign—a sign showing procedures for providing first aid, including, for example, expired air resuscitation and external cardiac compression

Swimming pool—an excavation or structure

- (a) capable of being filled with water to a depth of 300 mm or more
- (b) capable of being used for swimming, bathing, wading, paddling or some other human aquatic activity

(c) solely or principally used—or designed, manufactured or adapted—for the above purposes despite its current use. This includes spa pools, spa tubs or similar things (whether portable or fixed) and wading pools (other than portable wading pools).

A swimming pool does not include:

- (d) a fish pond or pool solely or principally used—or designed, manufactured or adapted—for ornamental purposes
- (e) a dam or tank solely or principally used—or designed, manufactured or adapted—for aquaculture, marine research or storage of water
- (f) a watercourse
- (g) a portable wading pool.

Watercourse

- (a) a canal, creek, river or stream in which water flows permanently or intermittently
- (b) a lake or other natural collection of water (whether permanent or intermittent).

Abbreviations

- BA Building Act 1975
- LGA Local Government Act 1936
- SBB Standard Building By-laws
- SBR Standard Building Regulation 1993
- BR Building Regulation 2006

1.7 Applicable Australian standards

AS 2818–1986 and AS 2818–1993: Guide to swimming pool safety provide guidance on the prevention of accidental drowning and injuries in private swimming pools and spa pools, and identifies potential hazards in the use and maintenance of private swimming pools.

AS 1926–1986 and AS 1926.1–1993: Swimming pool safety—Part 1: Fencing for swimming pools and AS 1926.2–1995: Swimming pool safety— Part 2: Location of fencing for private swimming pools specify requirements for the design, construction and performance of fences, gates, retaining walls, windows, door sets and balconies intended to form part of a barrier that will restrict the access of young children to swimming pools.

AS1926.1—2007: Swimming pool safety—Part 1: Safety barriers for swimming pools and AS1926.2—2007: Swimming pool safety—Part 2: Location of safety barriers for swimming pools as modified by the Queensland Development Code MP 3.4—Swimming pool barriers





Part 2: Fencing requirements for swimming pools built before 1 February 1991

2.1 Applicable legislation and standards

The following legislative requirements are relevant to swimming pools constructed before 1 February 1991.

- Amendments to the *Local Government Act 1936*, which commenced on 1 February 1991 and 14 September 1991.
- Amendments to the Standard Building By-laws on 14 September 1991.
- Section 9 of AS 2818–1986: Guide to swimming pool safety.
- AS 1926–1986: Swimming pool safety—Fencing for swimming pools.

2.2 All swimming pools must be fenced

The 1991 amendments to the Local Government Act and the Standard Building By-laws required every swimming pool, regardless of when the pool was constructed, to have a complying pool fence around it unless the local council granted an exemption. The fence could be in the form of a complete isolation fence (i.e. four-sided) or a fence that incorporated protected openings in the external walls of buildings on the site. The minimum standard of fencing that applied was dependent on whether the local council had additional regulations (local law) addressing the construction of fencing around swimming pools.

2.3 Local governments with swimming pool fencing laws

Some local councils have local laws that specify pool fencing standards. If the local laws of the time allowed fencing to be of a lesser standard than the state laws, the local laws did not apply. For example, the state legislation required all openings in the external wall of a building giving access to the pool area to be protected. If a local council's law did not require the openings in the external wall of a building to be protected, the state law would override local law.

If a local council's laws were more stringent than the state legislation, the local laws applied. For example, if local law did not permit direct access from the house to the pool area, where state legislation permitted direct access, the local requirement would prevail over the state legislation.

2.4 Local governments without swimming pool fencing laws

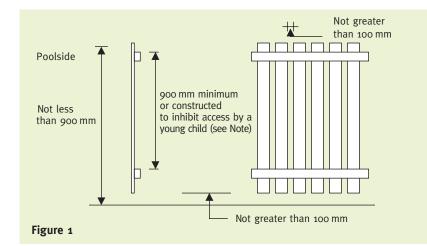
If a local government did not have a local law specifying fencing standards for swimming pools prior to 1 February 1991, the minimum fencing standards detailed below apply.

2.5 Summary of fencing standards

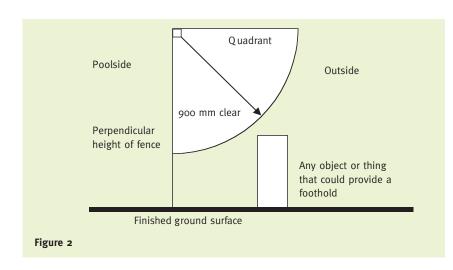
For a swimming pool constructed before 1 February 1991, compliant pool fences:

• must be at least 900 mm in height and constructed to inhibit access by young children to the pool area (see figure 1)

- can have horizontal rails closer than 900 mm if the fence was constructed in a way that was likely to inhibit children from climbing over it (see figure 1)
- can have vertical poles greater than 100 mm apart if the fence was constructed in a way that was likely to inhibit young children accessing the pool area
- must have the top of the fence set at least 900 mm away from the ground or the closest point of any object which could provide a foothold (see figure 2)
- must protect all openings from a building giving access to the pool area so that they inhibit access by young children from a building to a swimming pool (see figures 3–5 and definition of protected opening)
- can incorporate openings that were lawfully constructed according to a local council law existing before
 1 February 1991, provided the local law related to inhibiting access by young children from a building to a swimming pool
- does not need to take into account objects that were reconstructed or placed on adjoining land when compliance with AS 1926–1986 was determined
- does not require isolation of the pool from a watercourse (see definition of watercourse), unless specifically required by the local government.



Note: Pools constructed before 1 February 1991 may have rails closer than 900 mm and gaps greater than 100 mm provided the fence is constructed to inhibit access by young children. The local government would have decided whether the fence satisfied this requirement.



2.6 Above-ground pools

The required wall height of aboveground swimming pools constructed before 1 February 1991 is 900 mm. If a local council law at the time required greater height, that height must be complied with and the walls of the pool should be reconstructed to provide a barrier not less than the standard for a pool fence (see figures 6 and 7). Fixed or removable ladders were not permitted unless contained within a complying pool fence.

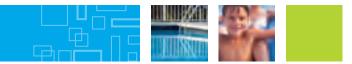
2.7 Swimming pools with no fence

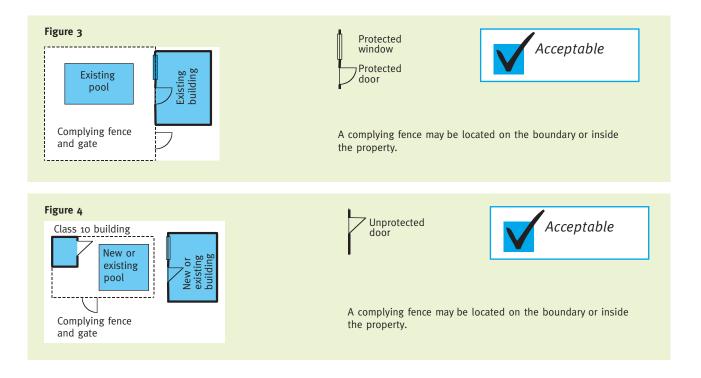
An unfenced swimming pool constructed before 1 February 1991 would only have been permitted under an exemption granted by the local council. Unfenced pools without an exemption are in breach of the pool fencing legislation. In these situations, the pool owner is required to install a fence compliant with current pool fencing laws.

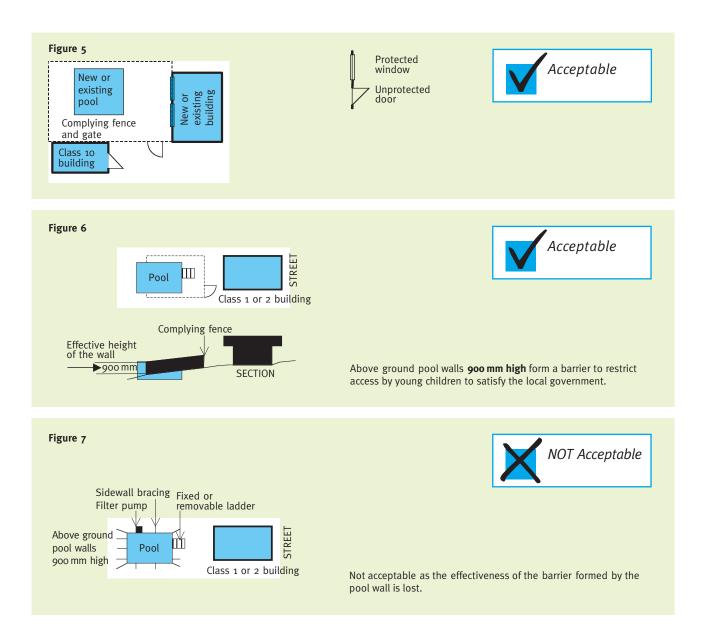
2.8 Replacement of swimming pool fences

If a substantial portion of a pool fence is demolished, removed or replaced, it must be replaced with a new fence compliant with current pool fencing standards and the building certifier must inspect the fence and issue a final inspection certificate.

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Part 3: Fencing requirements for swimming pools built between 1 February 1991 and 29 April 1998

3.1 Applicable legislation and standards

The following legislative requirements are relevant to swimming pools constructed between 1 February 1991 and 29 April 1998.

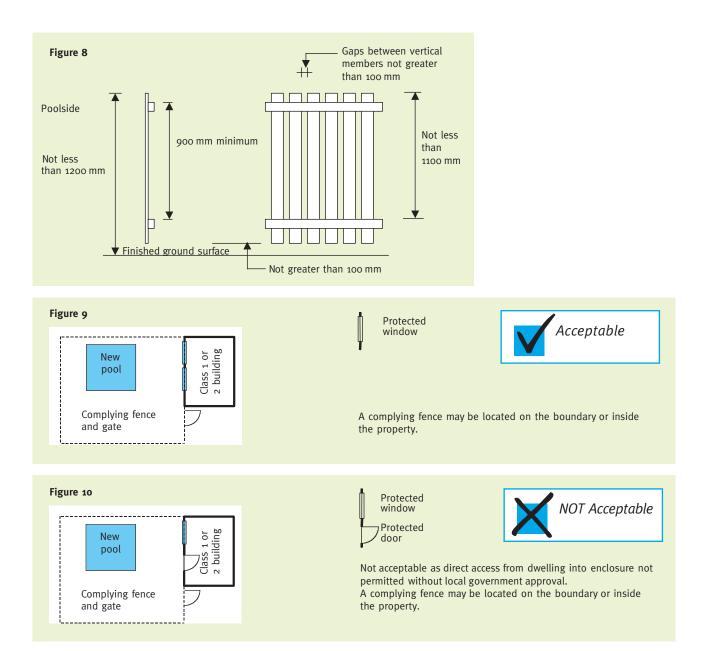
- Section 49H of the *Local Government Act 1936*, for pools built up to 25 March 1994
- Section 30H of the *Building Act 1975*, for pools built from 26 March 1994
- Building Act Amendment Act 1991
- Local Government Act and Other Acts Amendment Act 1990, which commenced on 1 February 1991
- Local Government (Swimming Pool Fencing) Amendment Act 1991, which commenced on 14 September 1991
- Standard Building By-laws (Swimming Pool Fencing) Order 1991
- Standard Building Regulation 1993
- Section 9 of AS 2818–1986: Guide to swimming pool safety
- AS 1926–1986: Fences and gates for swimming pools.

3.2 Summary of fencing standards

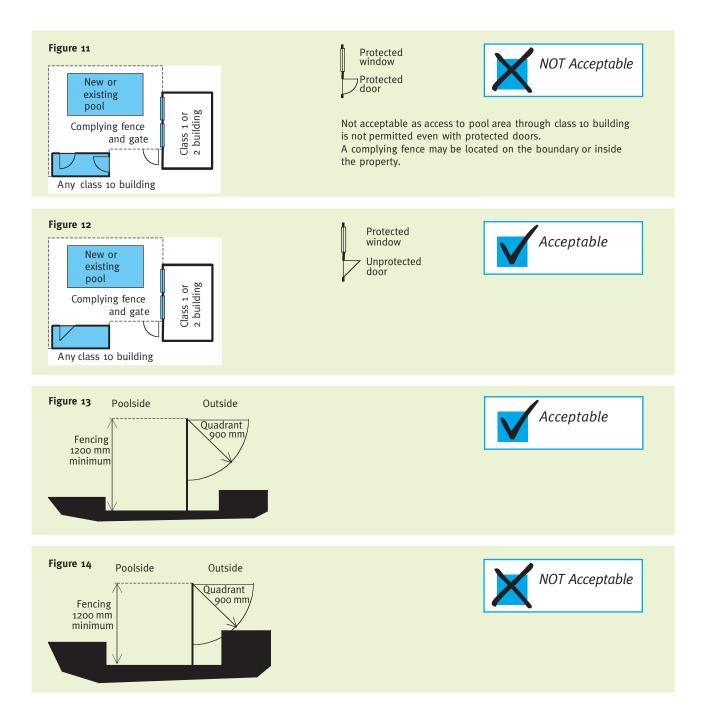
For swimming pools constructed between 1 February 1991 and 29 April 1998, compliant pool fences:

- must be at least 1200 mm in height and constructed to inhibit access by young children to the pool area (see figure 8)
- must not have horizontal rails closer than 900 mm apart (see figure 8)
- must not have vertical posts greater than 100 mm apart or any gap under the fence greater than 100 mm (see figure 8).
- must have no less than 1100 mm between the top of the highest lower horizontal support and the top of the fence (see figure 8)
- can have protected windows, but can not have any door openings giving access to the pool area without local council approval (see figures 9–12)
- does not need to consider things on adjoining land when determining compliance with AS 1926–1986

- does not required the pool to be isolated from a watercourse (see definition of watercourse) unless specifically required by the local government
- can incorporate the external walls of a class 10 building (garage, garden and storage shed). Any openings in the class 10 building must not provide access from outside the building into the pool area (see figures 11 and 12)
- must have the top of the fence set at least 900 mm away from the ground or the closest point of any object which could provide a foothold (see figures 13–14).





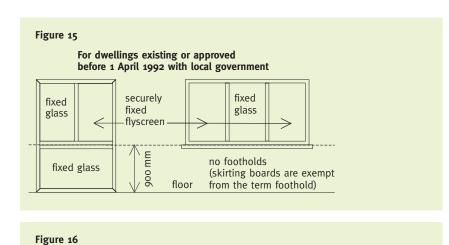


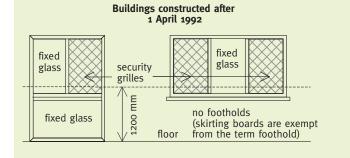
For a window opening in an existing building, the local council could approve a sill height of not less than 900 mm in conjunction with a securely fixed fly screen (see figure 15). Windows in buildings constructed after 1 April 1992 required a sill height of 1200 mm, or that windows be otherwise protected (see figure 16).

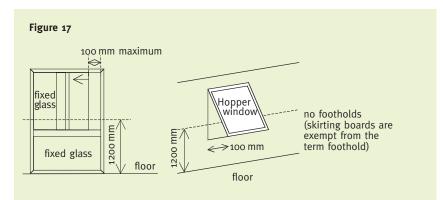
For a swimming pool constructed or approved for construction before 1 February 1991, the complying pool fence could incorporate openings in the external wall of an existing building (constructed or approved before 1 April 1992) provided the openings complied with AS 2818– 1986 (see figures 16 and 17).

3.3 Above-ground pools

The required wall height of aboveground swimming pools lawfully constructed after 1 February 2991 is 1200 mm. The walls of the pool must be constructed so as to provide a barrier not less than the standard for a pool fence (see figures 6 and 7). Fixed or removable ladders are not permitted unless contained within a complying pool fence.









Part 4: Fencing requirements for swimming pools built between 30 April 1998 and 30 September 2003

4.1 Applicable legislation and standards

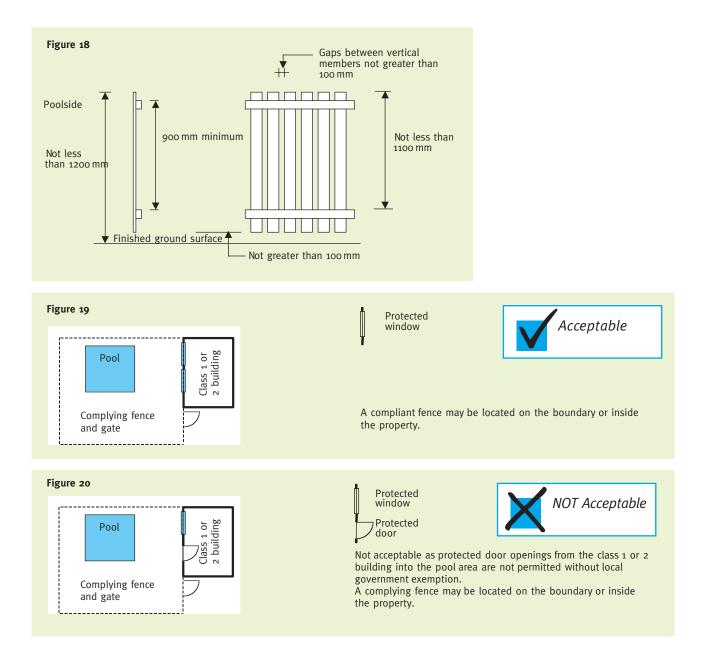
The following legislative requirements are relevant to swimming pools constructed between 30 April 1998 and 30 September 2003.

- Building Act 1975
- Standard Building Regulation 1993
- Building and Integrated Planning Amendment Act 1998, which commenced on 30 April 1998 amending the Building Act 1975
- *Plumbing and Drainage Act 2002*, which commenced on 7 February 2002 amending the *Building Act 1975*
- Building Legislation Amendment Regulation (No.1) 1998, which commenced on 30 April 1998 amending the Standard Building Regulation 1993
- AS 1926.1–1993: Swimming pool safety—Part 1: Fencing for swimming pools
- AS 1926.2–1995: Swimming pool safety—Part 2: Location of fencing for private swimming pools

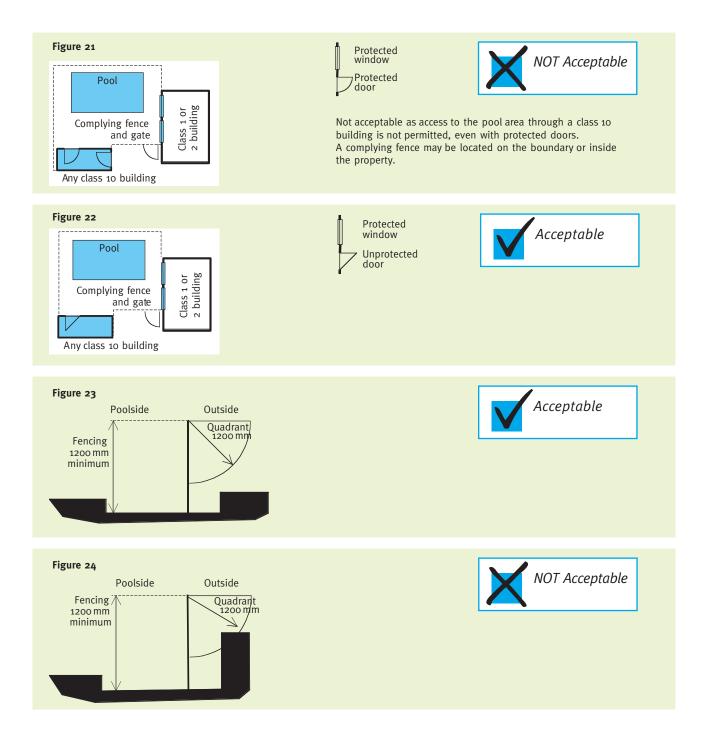
4.2 Summary of fencing standards

For swimming pools constructed between 30 April 1998 and 30 September 2003, compliant pool fences:

- must be at least 1200 mm in height and constructed to inhibit access by young children to the pool area (see figure 18)
- must not have horizontal rails closer than 900 mm apart (see figure 18)
- must not have vertical posts greater than 100 mm apart or a gap under the fence greater than 100 mm (see figure 18)
- can have protected window openings (see figure 19)
- must not have protected door openings providing access to the pool without an exemption from the local council (see figures 20-22)
- must have the top of the fence set at least 1200 mm away from the ground or the closest point of any object which could provide a foothold (see figures 23–24).







Part 5: Fencing requirements for swimming pools built between 1 October 2003 and 31 August 2006

5.1 Applicable legislation and standards

The following legislative requirements are relevant to swimming pools constructed between 1 October 2003 and 31 August 2006.

- Building Act 1975
- Building Amendment Act 2003 amending Part 3 of the Building Act 1975
- Standard Building Regulation 1993
- Standard Building Regulation 1993 amendments on 30 April 1998 and 1 July 2002
- Standard Building Amendment Regulation (No.1) 2003, commenced on 1 October 2003
- Standard Building Amendment Regulation (No.3) 2005
- State Penalties Enforcement Regulation 2000
- AS 1926.1-1993 Swimming pool safety—Part 1: Fencing for swimming pools

5.2 Summary of fencing standards

For swimming pools constructed between 1 October 2003 and 31 August 2006, compliant pool fences:

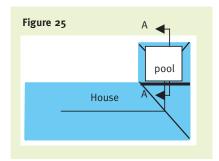
- must be at least 1200 mm high and constructed to inhibit access by young children to the pool area
- must not have horizontal rails closer than 900 mm apart (see figure 18)

- must not have vertical posts greater than 100 mm apart or a gap under the fence greater than 100 mm (see figure 18)
- must have protected window openings (see figure 19)
- must not have unprotected or protected door openings (see figures 20-22)
- must have the top of the fence set at least 1200 mm away from the ground or the closest point of any object which could provide a foothold (see figures 23–24)
- must be constructed around swimming pools that are not fully enclosed by the walls of a building (see figures 25–27)
- must be inspected by a building certifier and approved prior to the swimming pool being filled to a depth of more than 300 mm.

The amendment (Standard Building Amendment Regulation [No.3] 2005) provided an alternative to the swimming pool fence provided in the standard (AS1926.1).

As an alternative to the fencing shown in the standard (AS1926.1– 1993) a fence can be compliant if:

- the fence, when measured from the pool side, is at least 1.8 m high above the ground
- a young child could not dig through or under the surface below the pool fence
- there is a clear span of 900 mm measured at all angles from the top of the fence



• if the fencing is constructed from perforated material or mesh, the holes in the material are no more than 13 mm (see figure 28)

Additional requirements

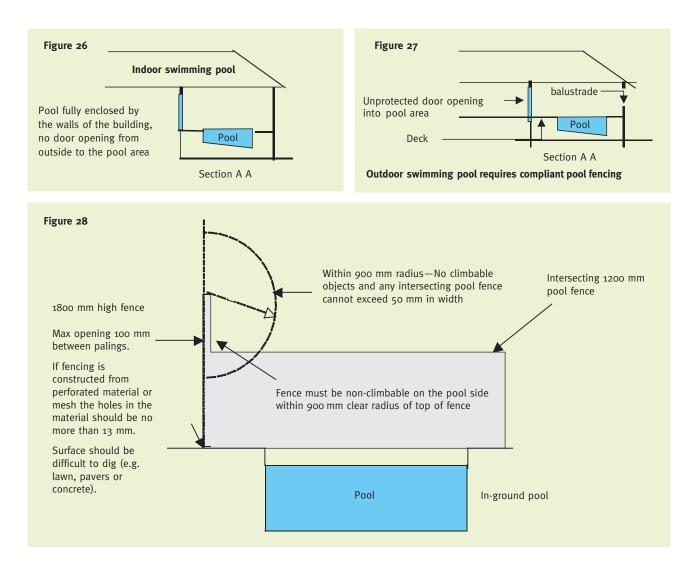
Warning signs

Before construction of a swimming pool begins, a warning sign must be displayed on the land until a fence complying with the pool fencing standards has been constructed and approved.

Resuscitation sign

A pool owner must ensure that a resuscitation sign showing procedures for providing first aid is displayed near the pool.





Part 6: Fencing requirements for swimming pools built on or after 1 September 2006 and before 1 December 2009

6.1 Applicable legislation and standards

The following legislative requirements are relevant to swimming pools constructed on or after 1 September 2006 and before 1 December 2009:

- Building Act 1975
- Building Regulation 2006
- State Penalties Enforcement Regulation 2000
- AS 1926.1–1993: Swimming pool safety—Part 1: Fencing for swimming pools
- AS 1926.2–1995: Swimming pool safety—Part 2: Location of fencing for private swimming pools

6.2 Summary of fencing standards

No changes were made to the technical provisions of the swimming pool fencing standards on 1 September 2006. The main changes to the legislation clarified the definition of an indoor pool as a swimming pool on a deck or the roof of a building that is only accessible from within the building.



Part 7: Fencing requirements for swimming pools built on or after 1 December 2009

In December 2008, the Queensland Government announced the most comprehensive review of the state's swimming pool safety laws in nearly 20 years. This review focused on reducing the number of drownings and serious immersion injuries in swimming pools involving children less than five years of age. A swimming pool safety review committee was established comprising representatives from the Queensland Government, local government, industry and child and water safety groups. The committee provided its report in April 2009 with 23 improvement ideas for Queensland's swimming pool safety laws. In preparing this report, the committee considered submissions from a range of stakeholders and reviewed several interstate and international regulatory systems for swimming pool safety.

After considering the report and the submissions from the public consultation process, the Queensland Government approved a two-stage swimming pool safety improvement strategy. Stage one for new swimming pools took effect on 1 December 2009.

Stage two, which will cover mostly existing pools, is proposed to take effect from 1 December 2010.

For outdoor swimming pools on residential land built after 1 December 2009 the Queensland Development Code (QDC) MP 3.4 Swimming pool barriers is prescribed in the Building Regulation 2006 as the pool fencing standard. The QDC MP 3.4 references Australian Standard AS1926.1 and 2-2007 Swimming pool safety, with a number of Queensland modifications. QDC MP 3.4 is a performance-based code which is a change from the previous prescriptive standards that applied for swimming pool barriers. If an alternative solution is approved, it must be fully documented and must meet the performance requirements and not compromise any safety aspects of the barrier to the swimming pool for young children.

7.1 Applicable legislation and standards

The following legislative requirements are relevant to swimming pools constructed on or after 1 December 2009:

- Building Act 1975
- Building Regulation 2006
- Building and Other Legislation Amendment Regulation (No. 3) 2009
- Queensland Development Code MP 3.4 Swimming Pool Barriers
- AS 1926.1–2007: Swimming pool safety—Part 1: Safety barriers for swimming pools
- AS 1926.2-2007: Swimming pool safety—Part 2: Location of safety barriers for private swimming pools.

7.2 Summary of fencing standards

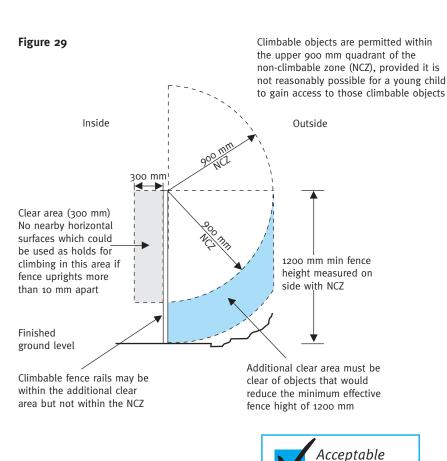
For outdoor swimming pools on residential land constructed on or after 1 December 2009 the changes include:

- simplification of pool fencing laws to the latest pool fencing standard (application of the new Queensland Development Code MP 3.4 Swimming pool barriers as the pool fencing standard)
- provisions to allow temporary fencing for pools in some circumstances
- mandatory follow-up inspections to help ensure all new swimming pools undergo a final inspection
- mandatory cardiopulmonary resuscitation (CPR) signage that meets current best practice.

Compliant pool barriers:

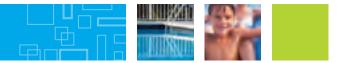
• must be at least 1200 mm high and constructed to restrict access by young children to the pool area. (see figure 29)

The non-climbable zone (NCZ) has changed and is now a 900 mm arc instead of the 1200 mm in the previous standard. This zone consists of the barrier as well as the associated space within 900 mm of the barrier and is intended to restrict the climbing of the barrier by young children.



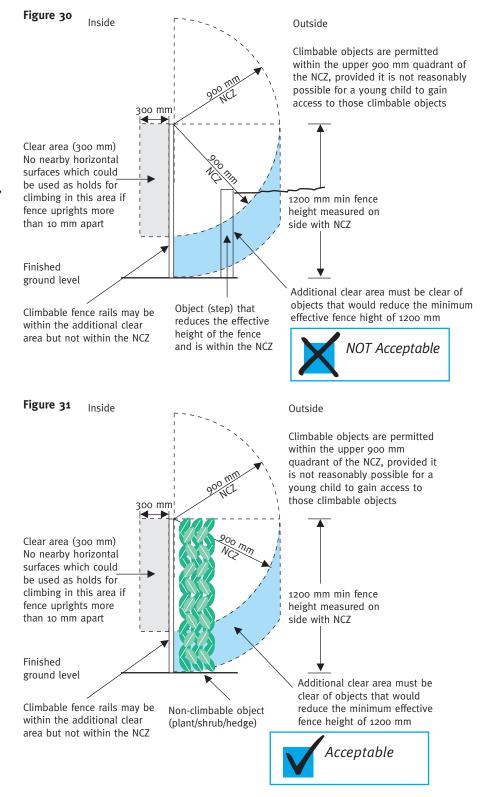
This NCZ now also extends in an upward direction to help ensure there are no objects on the outside of the fence which could be used to bridge across to the top of the fence and allow access to the pool area.

An additional clear area (generally below the NCZ) must be kept clear of objects that would reduce the minimum effective height of the barrier. Climbable rails on the fence or hand and footholds on the fence may be within this additional area but not within the NCZ. The effective height of the barrier is measured on the side where the NCZ is located and for barriers up to 1800 mm high the NCZ must be located on the outside of the barrier (side facing away from the pool area).



 must have an non-climbable zone (NCZ) at least 900 mm away from the ground or the closest point of any object which could provide a foothold. (see figures 30 and 31)

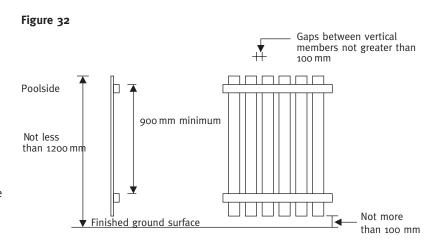
The NCZ must be free of objects which could allow the climbing of the barrier by young children. The additional clear area must also be kept clear of objects which would reduce the minimum effective height of the barrier. Vegetation (e.g. plants, shrubs, hedges, etc) can be within both the NCZ and the additional clear area if they are non-climbable. For vegetation, the type of foliage, diameter of trunks and branches and the ability to support a child will determine their suitability to be located near a pool barrier.



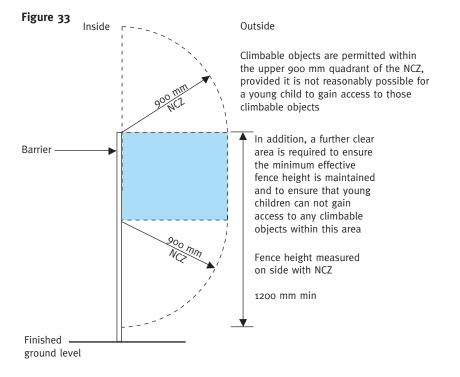
• must not have horizontal rails closer than 900 mm apart (see figure 32) and vertical members (e.g. palings, rods, wires etc) no greater than 100 mm apart or the gap under the fence no greater than 100 mm.

The NCZ is located on the outside of the barrier from the upper rail to lower rail. The additional clear area will be both above and below the NCZ so the effective minimum height of the barrier is 1200 mm or more.

The area underneath the pool fence must be stable and remain intact at all times. Loose sand is not acceptable and a young child must not be able to dig through or under the surface below the pool barrier.







 for fences 1800 mm or more in height, when measured from the pool side, there must be a NCZ of 900 mm measured horizontally out and down from the top of the fence (see figure 34).

When the NCZ is on the outside, this zone now also extends in an upward direction to ensure there are no objects on the outside of the fence which could be used to bridge across to the top of the fence and allow access to the pool area. Climbable objects are permitted within the upper 900 mm quadrant of the NCZ, provided it is not reasonably possible for a young child to gain access to those climbable objects (see figure 33).

When the NCZ is on the inside, an intersecting fence can be within the NCZ as long as the top part of the fence is a maximum 50 mm wide. This intersecting fence should meet the other fence at right angles but can be within the range of 45 and 135 degrees to the 1800 mm or higher fence.

Figure 34 (a)

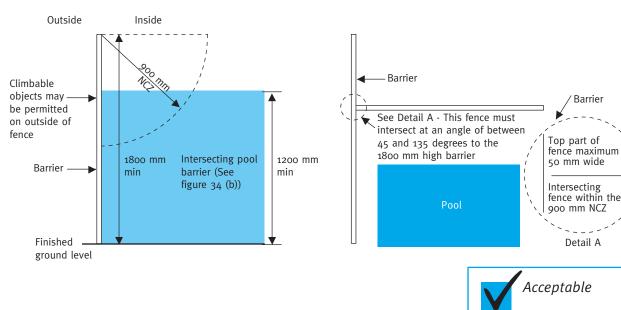
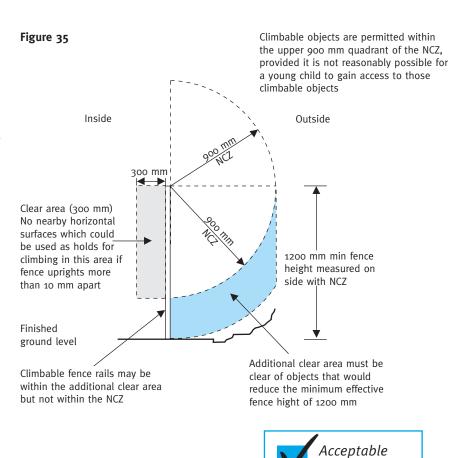


Figure 34 (b)

• must have a 300 mm clear area inside the fence (see figure 35)

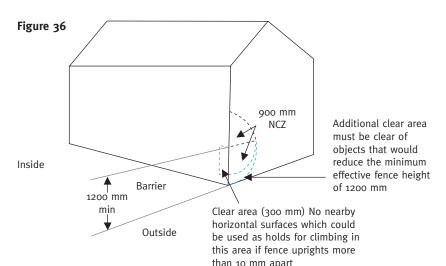
When the gap between any vertical members of the barrier is 10 mm or more there must be a 300 mm wide clear area adjacent to the NCZ with no horizontal surfaces which could be used as holds for climbing.





• must have the NCZ continuing in a spherical form when intersecting other structures (see figure 36)

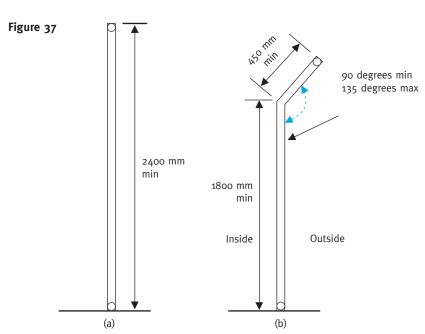
When the NCZ and barrier intersect another barrier, building or structure, the NCZ and the additional area must continue in a spherical form to ensure that there are no climbable objects past the intersection to allow the climbing of the barrier by young children.



Note: The non-climbable zone continues in spherical form at the intersection of the pool barrier with the structure to the wall of the structure. The additional clear area continues in an arc past the intersection to the wall of the structure.

 when a NCZ and clear area is not provided and the fencing is constructed from perforated material or mesh, the holes in the material must be no more than 13 mm (see figure 37).

When a NCZ and clear area is not provided, barriers using perforated material or mesh with apertures greater than 13 mm but less than 100 mm must be 2400 mm in height. The barrier must include a strainer wire or rail at the top and bottom of the fencing. As an alternative, the vertical section of fence can be reduced to 1800 mm in height if there is a cranked section at least 450 mm in length. The cranked section must be outward to the pool area and be at an angle between 90 and 135 degrees. The mesh on the cranked top section must have apertures less than 100 mm.



Note: Barriers using perforated material or mesh with apertures greater than 13 mm but less than 100 mm shall comply Figure 37(a) or (b). Barriers using mesh must include a strainer wire or rail at the top and bottom of fencing. In Figure 37(b) the cranked top shall have apertures less than 100 mm



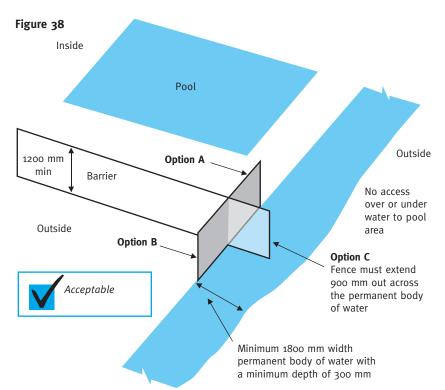
Acceptable

• can use a permanent body of water to form part of the swimming pool barrier (see figure 38).

A permanent body of water may only be used as a barrier if it is a canal, lake, river, creek, stream, pond, ocean or dam. There are three options available to maintain a barrier at the intersection of the pool barrier with the permanent body of water. The options are to use an overhanging panel or return fencing panel either into pool area or away from the pool area. Return and overhanging panels must have a minimum length of 900 mm. These panels must have a surface that does not provide any handholds or footholds. When the panels are located on a retaining wall or other such barrier, the outer edge of the wall must not to provide any handhold or foothold.

In assessing a permanent body of water for suitability the building certifier must ensure that:

 the depth of water is continuously more than 300 mm at any point of the area of the body of water adjacent to the barrier specified below. This needs to be verified from the relevant authority or, in cases where a relevant authority does not exist (e.g. for a private pond), by independent calculation. The minimum depth must be continuous at all times, including low tide, drought etc.



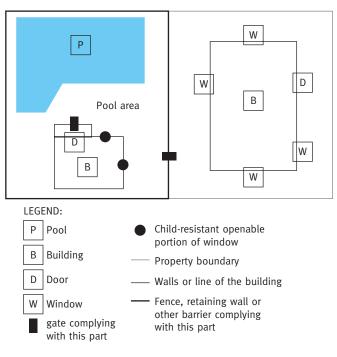
Note: A permanent body of water may only be used as a barrier if it is a canal, lake, river, creek, stream, pond, ocean, dam or the llike. In options A, B and C the overhang or return fencing (900 mm length) must have a surface that does not provide any handhold or foothold and when located on a retaining wall must at the outer edge of the wall or other such barrier so as not to provide a handhold or foothold. If two adjoining properties have a swimming pool only one of the options (A, B or C) need to be constructed. In option C the barrier must be within the title boundary and may need local government or state approval.



- the width of the body of water immediately adjacent to the edge of any pool area being protected is continuously equal to or exceeds 1800 mm at any point of the body of water. This must be verified by the relevant authority or, in cases where authority does not exist (e.g. for a private pond), by an independent calculation. The minimum width must be continuous at all times, including low tide, drought etc.
- access is not available to the pool area over or under the body of water.

If two adjoining properties have swimming pools only one of the options need to be constructed. When the option of having the addition panel overhanging the water, the barrier must be within the title boundary and may need state or local government approval.

Figure 39



If the building within the pool area is a patio, pergola, verandah, deck, balcony or the like (of any) having at least one side permanently open, it is not required to have a barrier.

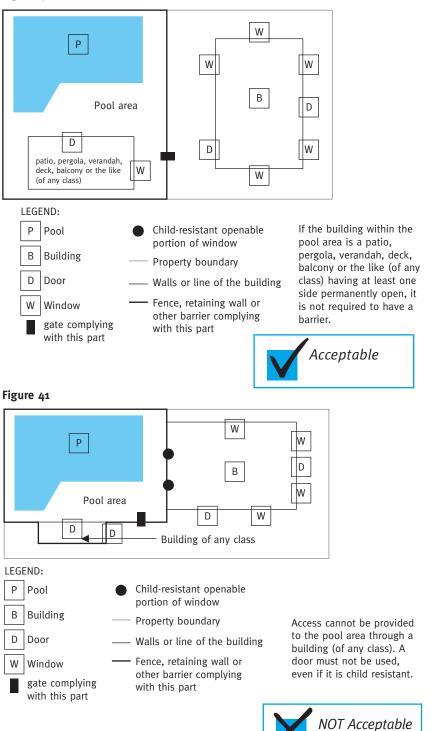


• must have protected window openings and must not have unprotected or protected door openings (see figures 39, 40, 41 and 42).

If a building within the pool area is a patio, pergola, verandah, deck, balcony or the like (of any class of building) having at least one side permanently open, it is not required to have a barrier. If class 1 or class 2 building is located within the pool area, access to the pool must be via a barrier complying with the pool fencing standard.

Access can not be provided to the pool area through a building (of any class). A door must not be used, even if it is child-resistant. A barrier may permit direct access to the pool area from a patio, pergola, verandah, deck, balcony or the like (of any class) having at least one side permanently open.

Figure 40





7.3 Inspections

Compliant pool barriers

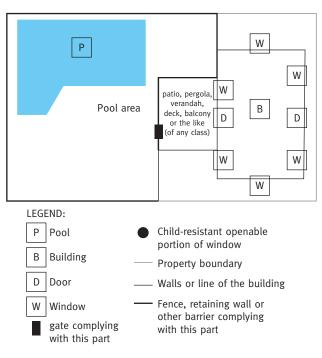
• must be inspected by a building certifier and approved prior to the swimming pool being filled to a depth of more than 300 mm.

Under the *Building Act 1975* and Building Regulation 2006 it is an offence to fill a swimming pool with 300 mm or more of water if a final inspection has not been undertaken by a building certifier and a compliance certificate issued. If the required final inspection has not been undertaken (for a pool only) within six months from building approval (or two years for a pool constructed with a new house or unit building), the building certifier must conduct a mandatory follow-up inspection.

7.4 Temporary fencing

Compliant temporary fencing with a gate may be used for a maximum period of three months. A building certifier must inspect and issue a compliance certificate for a temporary pool fence before the pool is filled with 300 mm or more of water. A building certifier can give written approval to extend the three-month period by a further three months if they are satisfied the safety of persons, particularly young children, would not be at risk.

Figure 42



A barrier may permit direct access to the pool area from a patio, pergola, verandah, deck, balcony or the like (of any class) having at least one side permanently open.



7.5 Signs

Resuscitation sign

A pool owner must ensure that a resuscitation sign showing the current procedures approved by the Australian Resuscitation Council for CPR and for providing first aid is displayed near the pool (see figure 43).

7.6 Self-assessable building work for swimming pools

Schedule 1 of the Building Regulation 2006 has been amended to allow building work to be self assessable if the work consists of repairs or maintenance to an existing swimming pool.

This means a building development approval is not required, but the work must comply with the relevant pool safety laws and standards. Examples of self assessable repairs and maintenance may include carrying out maintenance or repairs to components such as hinges, self closing mechanisms, striker latches or replacing a rotten fence picket. It is the pool owner's responsibility to ensure that any repairs and maintenance undertaken on their swimming pool barrier comply with the pool safety laws and standards.

For example, the Australian Standard AS1926.1—2007 sets out the testing for:

- strength and rigidity of openings in fencing
- strength of posts and footings
- strength of fencing components
- closing and latching of gates.

Figure 43



Schedules 1 and 2 of the Building Regulation 2006 have been amended to require a building approval for all other work relating to swimming pools and swimming pool barriers for pools covered by the pool safety laws. This includes wading pools and spas (fixed or portable).

Part 8: Miscellaneous

8.1 Earthing requirements

Electrical safety for pools and pool fencing

The electrical safety laws, including Wiring Rules Standard AS/NZ3000, apply to pool fencing, support structures and other fixed conductive material near to a pool. The Wiring Rules Standard also applies to fences which were erected after a pool's electrical equipment and ancillary fittings were installed.

The installation of an equipotential bond is electrical work and may only be undertaken by a licensed electrical contractor. A licensed electrical contractor will be able to discuss your pool's circumstances and inform you how your pool and associated electrical equipment (such as pool pumps and filters) can be built in an electrically safe manner.

For further information please go to the Electrical Safety Office's website at www.electricalsafety.qld.gov.au It is advisable to consult with all trades such as the pool builder, fence installer, landscaper, and the electrical contractor in the planning stage well before the pool and pool fence is constructed.

In general, pool fences and support structures situated closer than 1250 mm to swimming pools may require connection of an equipotential bond (joining together metalwork that is or may be earthed so that it is at the same potential or voltage everywhere) which joins together all the conductive parts in and near the pool, the steel reinforcing in the shell and handrails which connects them to an earthing point.

Part 9: History of swimming pool fencing legislation and relevant standards

Primary legislation	Amending legislation	Relevant building standard		
Local Government Act 1936	Section 31B was included by Section 6 of the Local Government Act and <i>Another Act Amendment Act 1979</i> , which commenced on 21 December 1979.	Any relevant standard would depend on whether it was mentioned in the local government by-law.		
Section 31B of the <i>Local Government Act 1936</i> specifies by-laws about fencing swimming pools. The legislation declared that local governments have and have always had power to make by-laws that require the erection of a fence around a swimming pool on private land.				
Local Government Act 1936	Section 49H was included by the <i>Local Government Act and Other Acts Amendment Act 1990</i> , which commenced on 1 February 1991.	AS1926–1986: Swimming pool safety—Fencing for swimming pools, as in force on 4 August 1986.		
The amendment repeals Section 31B and includes Section 49H covering the control and regulation of swimming pool fencing. Section 49H(4) provided that the owner of residential land on which there is an outdoor swimming pool must construct and maintain fencing around the swimming pool.				
Section 49H(4)(b) provided that the design, construction and performance of the fencing must comply with the standards prescribed by the Building By-laws. Section By-law 53.1A was included into the Standard Building By-laws, which prescribed the standards for the design, construction and performance of swimming pool fencing as AS1926–1986: Swimming pool safety—Fencing for swimming pools, as in force on 4 August 1986.				
Local Government Act 1936	Sub-sections (i) and (ii) were included by the <i>Local Government (Swimming Pool Fencing)</i> <i>Amendment Act 1991</i> , which commenced on 14 September 1991.	AS1926–1986: Swimming pool safety—Fencing for swimming pools		
The amendment included new sub-sections (i) and (ii) under Section 49H of the <i>Local Government Act</i> 1936. The additions provided that the design, construction and performance of fencing must comply with the Building By-laws standards if constructed before 1 February 1991. In any other case, the fence must comply with the standards prescribed by the Building By-laws. The Standard Building By-laws (Swimming Pool Fencing) Order 1991 set the prescribed standard as AS1926–1986: Swimming pool safety—Fencing for swimming pools as in force on 4 August 1986 as amended by Sections 53.1A, 53.1B, and 53.1C.				
Building Act 1975	By-laws included by the <i>Building Act Amendment</i> <i>Act 1991</i> and the Standard Building By-laws Amendment Order 1991, which commenced on 1 January 1992.	Building Act 1975, (schedule) Standard Building By Laws, sections 11.4 to 11.6 AS1926–1986: Swimming pool safety—Fencing for swimming pools		
AS2818-1986: Guide to swimming pool safety Sections 11.4 to 11.6 of the Standard Building By-laws were included into the Building Act 1975 covering swimming pool fencing standards				
Sections 11.4.(1) subject to sub-sections (2), (3), (4), (6), (7), (8) and (9), for the purposes of Section 49H(4)(b)(i) and (ii) of the <i>Local Government Act 1936</i> , stipulated that standards for the design, construction and performance of swimming pool fencing are those set out in AS1926–1986: Swimming pool safety—Fencing for swimming pools, as in force on 4 August 1986.				
Building Act 1975	Part 4B was included by Section 804 and schedule to <i>Local Government Act 1993</i> , which commenced on 26 March 1994.	Building Act 1975, sections 30E to 30Z Standard Building Law, sections 11.4 to 11.6 For swimming pools constructed before 1 February 1991—continue to comply with the standard AS1926–1986: Swimming pool safety—Fencing for swimming pools.		
		Pools constructed after 1 February 1991 must comply with standards applying to fencing after 1 February 1991: AS 1926–1986: Fences and gates for swimming pools. AS2818-1986: Guide to swimming pool safety (referenced)		
	1936 Section 31B of the Local governments have and he private land. Local Government Act 1936 The amendment repeals is Section 49H(4) provided maintain fencing around Section 49H(4) (b) provided prescribed by the Buildin standards for the design, Fencing for swimming por Local Government Act 1936 The amendment included that the design, construct February 1991. In any othe The Standard Building By safety—Fencing for swimm Building Act 1975 Sections 11.4 to 11.6 of th standards. Sections 11.4.(1) subject 1 Local Government Act 19 those set out in AS1926—	1936Government Act and Another Act Amendment Act 1979, which commenced on 21 December 1979.Section 31B of the Local Government Act 1936 specifies by-laws about fencing governments have and have always had power to make by-laws that require th private land.Local Government Act 1936Section 49H was included by the Local Government Act and Other Acts Amendment Act 1990, which commenced on 1 February 1991.The amendment repeals Section 31B and includes Section 49H covering the co Section 49H(4) provided that the owner of residential land on which there is a maintain fencing around the swimming pool.Section 49H(4) (b) provided that the design, construction and performance of th prescribed by the Building By-laws. Section By-law 53.1A was included into the standards for the design, construction and performance of swimming pool fencing for the design, construction and performance of a function on 14 September 1991.The amendment included new sub-sections (i) and (ii) were included by the Local Government Act 1936Sub-sections (i) and (ii) under Section 49H of the Local Government (Swimming Pool Fencing) Amendment Act 1991, which commenced on 14 September 1991.The amendment included new sub-sections (i) and (ii) under Section 49H of the Local Government Act 1991 and the Standards press The Standard Building By-laws (Swimming Pool Fencing) Order 1991 set the press safety—Fencing for swimming pools as in force on 4 August 1986 as amended 10 Building Act 1975Building Act 1975By-laws included by the Building Act Amendment Act 1991 and the Standard Building By-laws Amendment Order 1991, which commenced on 1 January 1992.Sections 11.4 (to 11.6 of the Standard Building By-laws were included into the Ba standards.Sections 11.4		



Time period	Primary legislation	Amending legislation	Relevant building standard		
30 April 1998	Building Act 1975	Section 82 was included by the <i>Building and</i> <i>Integrated Planning Amendment Act 1998</i> , which commenced on 30 April 1998.	<i>Building Act 1975</i> , sections 13 to 20 Standard Building Regulation 1993, sections 59 to 68		
		Section 83 authorised the renumbering of the Act in accordance with the <i>Reprints Act 1992</i> .	AS 1926.1–1993: Swimming pool safety—Fencing for swimming pools		
			AS 1926.2–1995: Swimming pool safety—Location of fencing for private swimming pools		
	Part 4B of the <i>Building Act 1975</i> for existing swimming pools constructed or installed before and after 1 February 1991 was amended. A transitional provision was included in Section 82 stipulating if a swimming pool fence was lawfully constructed and maintained before the commencement of this section, the <i>Standard Building Regulation 1993</i> cannot require the fence to be altered unless the fence is no longer maintained. This was later renumbered as Section 59. Section 30H (2) of the <i>Building Act 1975</i> provides for the standards prescribed under regulation. Under Section 30H (3), the owner				
	must keep the fence in good condition and at all times ensure the fencing complies with the standards applying at the time of construction. Section 30G, which dealt with local law for fencing of swimming pools, is also relevant.				
30 April 1998	Standard Building Regulation 1993	The Standard Building Regulation 1993 was amended by the subordinate legislation SL No. 86 Building Legislation Amendment	<i>Building Act 1975,</i> sections 13 to 20 Standard Building Regulation 1993, sections 59 to 68		
		Regulation (No. 1) 1998, which commenced on 30 April 1998.	AS 1926.1–1993: Swimming pool safety—Fencing for swimming pools		
			AS 1926.2–1995: Swimming pool safety, Location of fencing for private swimming pools		
	Part 5 of the Standard Building Regulation 1993, specifically Sections 59–68, became the primary legislation covering swimming pool fencing. Section 61 deals with pools built or approved before commencement of Part 5. Section 62 deals with pools approved before commencement of Part 5. For fencing around swimming pools approved for construction on or after the commencement of this part, the prescribed standard is subject to Sections 63 and 66:				
	 (a) the standard for the design, building and performance of swimming pool fencing in AS 1926.1–1993: Swimming pool safety— Fencing for swimming pools, other than clause 2.14 of the standard; and (b) the standard for the location of fencing contained in AS 1926.2–1995: Swimming pool safety—Location of fencing for private 				
	swimming pools, other than clause 1.4.4 of the standard.				
7 February 2003	Building Act 1975	Amendments to Section 14 of the <i>Building Act</i> 1975 were achieved by the <i>Plumbing and Drainage</i> <i>Act 2002</i> , which commenced on 7 February 2003.	Building Act 1975, sections 13 to 20 Standard Building Regulation 1993, sections 59 to 68		
			AS 1926.1-1993: Swimming pool safety		
			Fencing for swimming pools AS 1926.2—1995: Swimming pool safety—Location		
			of fencing for private swimming pools.		
	Section 14(1) (renumbered from 30H) of the <i>Building Act 1975</i> was amended requiring fencing to be inspected and approved before the pool can be filled. Section 14(2) was amended to clarify that an owner must, at all times, ensure swimming pool fencing complies with the standards prescribed under a regulation. Section 14(3) was amended to omit the phrase 'applying at the time of construction'.				
1 October 2003	Building Act 1975	New provisions were included by the <i>Building Amendment Act 2003</i> , which commenced on 1 October 2003.	Building Act 1975, sections 12T to 20 Standard Building Regulation 1993, sections 59 to 64 AS 1926.1-1993: Swimming pool safety Fencing for swimming pools		
			AS 1926.2—1995: Swimming pools safety—Location of fencing for private swimming pools		
	pool that is fully enclosed	Id warning signs were included into the <i>Building Act 197</i> by the walls of a building, stating that pools on decks a to limit a pool owner's ability to apply for exemptions.			

Time period	Primary legislation	Amending legislation	Relevant building standard		
1 November 2003	State Penalties Enforcement Regulation 2000	Provisions were included by the State Penalties Enforcement Amendment Regulation (No. 8) 2003.	Building Act 1975, sections 12T to 20 Standard Building Regulation 1993, sections 59 to 64 AS 1926.1-1993: Swimming pool safety Fencing for swimming pools AS 1926.2—1995: Swimming pool safety—Location of fencing for private swimming pools		
	Provisions were included to give local governments the power to issue on-the-spot fines for breaches of the pool fencing requirements of the <i>Building Act 1975</i> .				
18 November 2005	Standard Building Regulation 1993	The regulations were amended by the subordinate legislation SL No. 276 Building Amendment Regulation (No. 3) 2005.	Building Act 1975, sections 12T to 20 Standard Building Regulation 1993, sections 59 to 64 AS 1926.1-1993: Swimming pool safety Fencing for swimming pools AS 1926.2—1995: Swimming pool safety—Location of fencing for private swimming pools.		
	Section 60(2) was included to stipulate that the fencing standard does not include clauses 2.3, 2.6 and 2.7 of AS1926.1 for any part of the fencing of the pool if: • the fence, when measured from the pool side, is at least 1.8 m high above the ground • a young child could not dig through or under the surface below the pool fence • there is a clear span of 900 mm measured at all angles from the top of the fence • fencing is constructed from perforated material or mesh with gaps of not more than 13 mm in size.				
1 September 2006	Building Act 1975	Amended definition included by the <i>Building and</i> <i>Other Legislation Act 2006</i> , which commenced on 1 September 2006.	Building Act 1975, sections 232 to 246 Building Regulation 2006, sections 14 to 16 AS 1926.1-1993: Swimming pool safety Fencing for swimming pools AS 1926.2—1995: Swimming pool safety—Location of fencing for private swimming pools.		
	The amendment to the <i>Building Act 1975</i> clarified the definition of an indoor pool as a swimming pool on a deck or roof of a building which is only accessible from within the building.				
1 December 2009	Building Regulation 2006	The regulation was amended by the Building and Other Legislation Amendment Regulation (No. 3) 2009	Queensland Development Code (QDC) MP 3.4 Swimming pool barriers which calls up the Australian Standard AS1926 — 2007 parts 1 and 2 with modifications.		
	The amendment to the Building Regulation 2006 adopts the QDC MP 3.4 Swimming pool barriers as the pool fencing standard. The Australian Standard AS1926—2007 Swimming pool safety parts 1 and 2 with modifications are called up through the QDC. The amendment to the regulation includes mandatory follow-up inspections, the use of temporary fencing, the requirement for CPR signage displayed in pools areas to reflect new techniques in accordance with the Australian Resuscitation Council and the requirement for building approval for all work (except repairs and maintenance) relating to swimming pools and swimming pool barriers for pools covered by the pool safety laws.				









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