

QUESTION & ANSWER

Security Barriers for Hot Tubs

Q Are security barriers required for hot tubs, as they are for swimming pools?

A Glenn Mathewson, a building inspector in Westminster, Colo., responds: The simple answer to this question is yes. Hot tubs and spas provide the same fundamental drowning danger to small children that swimming pools do, and this danger is real. According to the U.S. Consumer Product Safety Commission, pool drowning is the second leading cause of death in children younger than five; approximately 280 die each year. An additional nine die each year in hot-tub drowning accidents. Sadly, hot

tubs and above-ground pools are often installed without a permit and without proper safety provisions.

At first glance, it would appear as though the 2006 IRC doesn't contain any provisions for pool security — you've got to look in the appendices at the end of the book. Standards in the appendices can be evaluated and modified by local jurisdictions separately from the body of the code and are not enforceable unless specifically adopted by the local jurisdiction. Additionally, many jurisdictions have their own

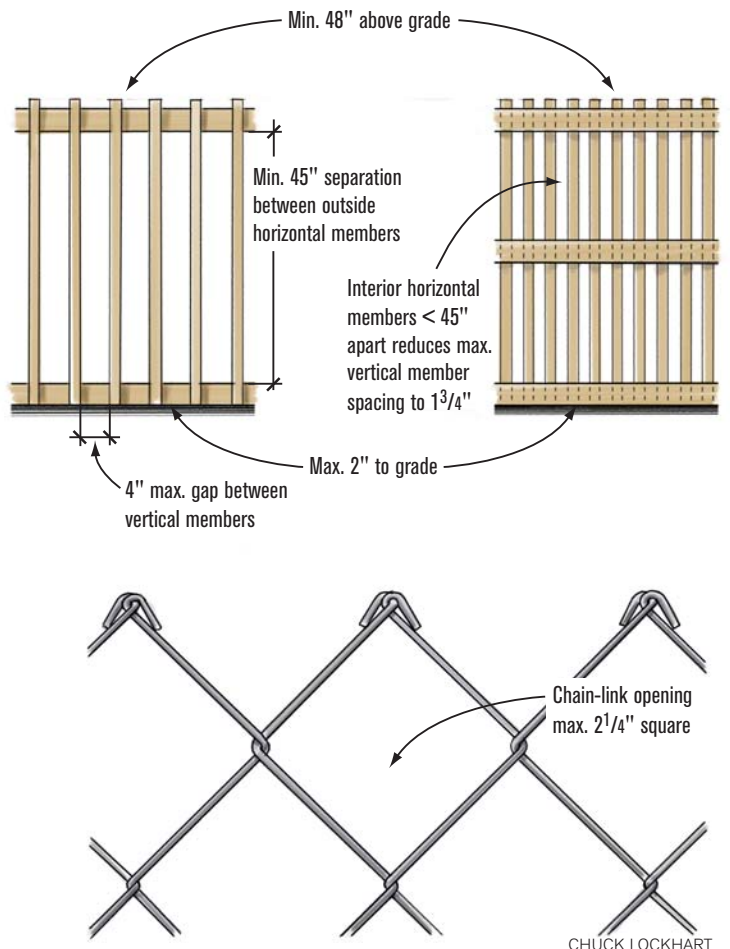
codes and policies in place for pool security enforcement, so you should read this answer for comprehension of the general standard and for awareness of the issue only. Before installing a security barrier for a hot tub, consult the local authority with jurisdiction.

Appendix G in the 2006 IRC requires security barriers for swimming pools, defined as *any structure intended for swimming or recreational bathing that contains water over 24 inches deep*. This includes in-ground, above-ground, and on-ground swimming pools, hot tubs, and spas. It's clear in the definition that only structures "intended for swimming and recreational bathing" are required to have security barriers. Ponds and water features are exempted.

There are noticeable differences between security barriers and guards (the railing required around decks that are more than 30 inches above the surface below). Guards are required in situations where an unintentional fall is likely to result in injury, whereas pool barriers are there to stop intentional entry into the water.

Before discussing the detailed barrier requirements, I am going to cheat and take you straight to the exception reserved exclusively for spas and hot tubs; trust me, this is the easiest way to compliance. Section AG105.5 exempts hot tubs and spas from all the provisions of the appendix, provided they have been installed with a safety cover complying with ASTM F 1346.

Unfortunately, many hot-tub covers don't meet this standard. To comply, covers must be able to be locked or otherwise held securely in place by a



means that will prohibit small children from entry, be labeled with a message about the dangers of drowning, and be capable of supporting 275 pounds (the presumed weight of an adult and one child).

Those are some of the specific provisions contained in the standard, but all you need to see is that the cover complies with the standard. You can find this out from the manufacturer and have the cover approved by the building department.

While that's the simple approach to hot-tub-barrier compliance, a standard pool barrier can also be used. There are 10 specific requirements for construction of pool barriers, and after reviewing them you will see why I strongly suggest the use of the approved cover. Detailing the requirements is very involved and outside the scope of this answer; the following brief summary should be enough to convince you of this:

- The minimum barrier height is 48 inches above grade, as measured on the side of the barrier that faces away from the pool (outside the pool area).
- Maximum clearance under the barrier to grade is 2 inches.
- The barrier cannot be climbable.
- Solid barriers, such as masonry or stone, cannot have "indentations or protrusions other than for normal construction."
- Maximum mesh size is $2\frac{1}{4}$ inches square for chain link, unless filled with slats reducing the opening to a maximum of $1\frac{3}{4}$ inches.
- For diagonal members (lattice), the maximum opening is $1\frac{3}{4}$ inches.
- Horizontal members not on the pool

side must be at least 45 inches apart.

- When horizontal members are on the pool side and less than 45 inches apart, the opening between or within vertical members must be less than $1\frac{3}{4}$ inches.
- Gates must comply with barrier requirements and have a locking device.
- Gates must swing away from the pool and be self-closing and self-latching.
- If the gate latch release is less than 54 inches from the bottom of the gate it must be located on the pool side at least 3 inches from the top of the gate, and the gate and barrier can't have an opening greater than $\frac{1}{2}$ inch within 18 inches of the release mechanism.
- If the dwelling acts as part of the barrier, the doors to that area must be provided with an alarm system (full of specific details), or provided with self-closing and self-latching doors that are approved by the building department and provide the same level of protection as the alarm.

For deck construction including a hot tub, don't disregard the requirements for a safe installation. Glass, lights, receptacles, switches, unbonded metal objects, dead load — and especially children — must all be considered.

Also, keep in mind that even the inexpensive, vinyl above-ground pools that can be purchased at most big discount stores are often 24 inches or more in depth and must comply with these regulations. There's no question about the danger and legal liability of these "attractive nuisances." ♦

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