intended function, it can be installed below the flood elevation if it is anchored and protected.

304.5 GFCI protection. Electrical equipment installed below the design flood elevation shall be supplied by branch circuits that have ground-fault circuit interrupter protection for personnel.

Electrical equipment that is installed below the design flood level, such as lighting, receptacle outlets and motorized pool covers, must be supplied by circuits that have ground-fault circuit interrupter (GFCI) protection.

SECTION 305 BARRIER REQUIREMENTS

305.1 General. The provisions of this section shall apply to the design of barriers for pools and spas. These design controls are intended to provide protection against the potential drowning and near drowning by restricting access to such pools or spas. These requirements provide an integrated level of protection against potential drowning through the use of physical barriers and warning devices.

Exceptions:

- 1. Spas and hot tubs with a lockable *safety cover* that complies with ASTM F1346.
- 2. Swimming pools with a powered *safety cover* that complies with ASTM F1346.
- Barriers around pools and spas significantly restrict unauthorized access to such pools and spas. The perimeter barrier design requirements in this section are especially focused on preventing children from having access to an area where the potential for drowning or near drowning is very high. Once children are inside the barrier perimeter, only constant adult supervision of those children can prevent drowning or near drowning. Thus, when adults choose to leave the pool and spa area, common sense dictates that all children should also leave the area and be taken outside of the perimeter barrier. Therefore, a thorough inspection of perimeter barriers is necessary, as they are the only required line of defense against drowning or near drowning of children when adults are not present.

The exceptions allow for spas and hot tubs with lockable covers complying with ASTM F1346 and pools with power safety covers complying with ASTM F1346 to not require barriers. A cover installed on a pool or installed on a spa or hot tub offers the same level of protection as a barrier, so barriers are not required. Commentary Figures 305.1(1) and 305.1(2) show powered safety covers on residential and public swimming pools, respectively. When covers are retracted or removed, only constant adult supervision of a pool and spa can prevent children from drowning or near drowning. Thus, when adults choose to leave the pool or spa area, common sense dictates that children are removed from the pool or spa and the cover installed immediately. Therefore, a thorough

inspection of covers, cover latching systems and cover deployment systems (and their operation) is necessary, as these covers are the only required line of defense against drowning or near drowning of children when adults are not present. Although the code is silent about the controls for electric-powered safety covers for pools, it is a reasonable assumption that care would be taken to keep the operating controls secured so only those persons responsible enough to not trap users in the pool would be operating the cover [see Commentary Figure 305.1(3)].

Note that a nonpowered pool cover (i.e., one that is manually installed) does not provide relief of the barrier requirement [see Commentary Figure 305.1(4)]. Even though a manual pool cover might comply with the requirements of ASTM F1346, installation of manually installed covers are time consuming and could be somewhat complicated such that they would not be used every time the pool was not in use.



FIGURE 305.1(1)
ON-DECK-TYPE POWERED SAFETY COVER FOR
RESIDENTIAL POOL

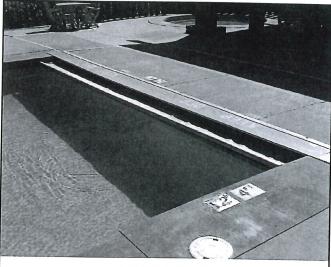


FIGURE 305.1(2)
INTEGRAL-TYPE POWERED SAFETY COVER FOR
PUBLIC POOL