

# Scoop

## THE LATEST TRENDS, SERVICES & PROMOTIONS

INDUSTRIES & ENVIRONMENT

JULY 2023

## SGS Hong Kong Extends WR2 Service to Swimming Pools

Though water and electricity don't mix, swimming pools simply can't function without an electric current. That's because there are numerous components that run on electricity, including the pool pump, lights, and water heater. Given the danger of shock and electrocution, it's important that your pool's wiring is installed, repaired, and inspected by a professional electrician.

To ensure the safety of electrical installations in swimming pools, Code 26M of the [Code of Practice for the Electricity \(Wiring\) Regulations](#) sets out some special requirements for electrical installations in the above places.



*Independent and innovative, our Industries & Environment experts offer a wide range of services for different electrical installation owners to gain compliance under EMSD requirements.*

SGS Hong Kong is proud to announce the extension of our WR2 service to the Electrical Installation (Isolating Transformer Requirement) for Swimming Pools.

### Swimming Pool Zones:

The space of a swimming pool is divided into 3 zones (i.e. Zones 0, 1 and 2). Zone 0 is the interior of the basin of the swimming pool, including any recesses in its walls or floors, basins for foot cleaning and waterjets or waterfalls and the space below them. Since the risk of electric shock is higher in this zone than those in Zones 1 and 2, we should understand the key requirements of this zone first.

### Electrical Requirements in Zones:

In accordance with Code 26M(4)(a), electrical installations in Zone 0 of a swimming pool (such as underwater lighting) are only permitted to be protected by separated extra-low voltage (SELV) at a nominal voltage not exceeding 12V AC and 30V ripple-free DC and the source for SELV should be installed outside Zones 0, 1 and 2. SELV means an extra-low voltage which is electrically separated from earth and from other systems in such a way that single fault cannot give rise to the risk of electric shock.

### Protective Measures:

In accordance with Code 26M(6)(a), the following protective measures should be employed for electrical installations (such as underwater lighting) in Zone 0 of a swimming pool:

- A safety isolating transformer conforming to IEC 61558-2-6 or equivalent should be installed to fulfil the source requirement for SELV
- The supply circuit of the safety isolating transformer should be protected by a residual current device (RCD) with a residual operating current not exceeding 30mA

### SGS Services:

1. Inspection of electrical installations
2. Replacement of SELV-approved transformers

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