Swimming pools — an overview
By Peter Lang

Although the First Amendment to BS 7671:2008 has just been published and is due to come into effect from 1st January 2012, it is only since the publication of The 16th Edition of The IEE Wiring Regulations in 1991 that there has been a dedicated section to swimming pools, Section 702 Swimming Pools and Other Basins.

Section 702 appears to be quite compact in its makeup but the Regulations are to be viewed as a whole and individual sections should not be viewed in isolation.

Remember that Part 7 of BS 7671 Special Installations or Locations – Particular Requirements supplements or modifies the requirements of Parts 1 – 6 of the Regulations.

Pool construction
Pool construction in the domestic market (domestic meaning those pools of private residences) will vary due to the requirements and budget of the pool owner. It will range from a reinforced concrete construction to a non-concrete structure/framework which has little, if any, structural strength and which supports a tailored vinyl lining (liner pools).

Additionally, fibreglass modular and above ground pools are installed. In the commercial market, the main form of construction is reinforced concrete but there are some non-concrete structures with more substantial linings.

The pool shell is generally a monolithic structure not reliant on any other construction.

Specialist systems
The swimming pool is an amalgam of many specialist systems, which are:
- the pool construction
- the water circulation system
- the filtration system
- the heating system
- the water treatment system

Additionally there may be:
- an environmental control system
- a hydro-therapy system

At the heart of all the pool is the filtration system, which can consist of many pumps. The pumps move the pool water through all the specialist systems listed above and without it operating correctly all other systems will fail. Theses pumps are driven by electric motors of varying sizes depending on the volume of water of the pool and the nature of the pool use.

SPATA
SPATA – the Swimming Pool and Allied Trades Association

About the author
Peter Lang has been Technical Adviser to SPATA since 2002, prior to which he was an installer of all types of pools for nearly 25 years. He is a Fellow of ISPE and spent 11 years chairing the Technical Committee for the European Union of Swimming Pool and Spa Associations (EUSA).