**Appendix R**

**MODEL OPERATING INSTRUCTIONS FOR A TRICHLORINATOR**

The following is a summary of the instructions for using a trichlorinator.

Please note: the trichlorinator should NOT be opened when the pool is in use.

To fill the trichlorinator with tablets:

* Open both the top and bottom valves fully and allow water to flow through it so as to ensure a complete change of water within the trichlorinator unit:
* Close the bottom valve and wait for two minutes;
* Close the top valve;
* Slowly release the fasteners on the lid;
* Release the vacuum slightly by opening and then closing the top valve and then remove the lid;
* Lower the water level as required by opening the bottom valve.

Please note:

Sufficient water should be left in the trichlorinator to cover any tablets remaining in it otherwise chlorine gas will form:

* Add the number of tablets required;
* Top up with water from the top valve to exclude air from the trichlorinator;
* Replace the lid and carefully replace the fasteners;
* Resume the operation of the trichlorinator by fully opening the top valves and opening the outlet valve to its normal position.

Waterflow through the trichlorinator should be adjusted by using the outlet valve to maintain a free chlorine residual of 2.0 to 5.0mg/litre (ppm) in the pool water at all times.

Where the bathing loads are constant it may be possible to use a pre-determined valve setting.

The trichlorinator should be checked every two or three days and tablets should be added as necessary.

Once a month both valves should be opened fully for half a minute to flush out any powder which may have collected in the valves and pipework, especially if the free chlorine residual is falling off.

When the trichlorinator is in operation the inlet valve should be left open and the outlet valve should be left in a slightly restricted position to avoid the possibility of pump suction emptying the trichlorinator.

Tablet should not be left in the trichlorinator for prolonged periods without a flow of water as a potentially explosive situation could arise.

Please note: If a pump fails or something similar occurs which leaves the trichlorinator loaded under stagnant conditions the swimming pool contractor should be contacted and asked to give assistance.

If it is necessary to stop using the trichlorinator for any period of time, for example, when the pool is drained, or being repaired or closed during the winter, the tablets should be allowed to dissolve completely. The trichlorinator unit should then be flushed with clean water and be left with the lid off and the valves closed.

Due to possible variations in pressure it may be wise to isolate the unit during filter backwashing.

The ability of the operator to maintain the correct chlorine level in the pool will be based on experience, frequent poolside tests, and reference to previous treatment records.

The use of trichloroisocyanuric acid can lead to excessive amounts of cyanuric acid being present in the pool and this can interfere with the efficiency of the chlorination. Some cyanuric acid is removed by regular backwashing and the addition of 30 litres of fresh water per bather per day. To check the levels of cyanuric acid are not excessive the pool water should be tested for levels of cyanuric acid weekly. The recommended level is between 50 and 100ppm and this can be reduced by increasing the amount of water change/dilution of the pool water by mains water.