

Public swimming pools and spa pools

Health Protection Programs
SA Health



**Government
of South Australia**

SA Health



Ultraviolet light (UV)



UV - Fit for purpose

- > Not a strange concept
- > Chloramine reduction vs Cryptosporidium inactivation
- > Partial/side flow vs full flow
- > On when the pool is in use vs 24/7



UV - Evidence

- > Chloramine reduction – test combined chlorine
- > Cryptosporidium inactivation – received dose through a meter or delivered dose and UVT
 - EOLL dose 30mj/cm² at;
643m³ with 95% UVT
529m³ with 91% UVT



Filtration rate and turnover



The Regulations

- > Spa = 30 minutes
- > Waterslide = 1 hour
- > Wading or hydrotherapy pool = 2 hours
- > Any other case = 6 hours

- > What do you need to work this out?




Turnover

- > Pool volume – 725m³
- > Specifications (best case scenario, not necessarily accurate)
 - Filter specifications
 - 3 filters have a flow rate of 115m³/hr-192m³/hr
 - Combined maximum flow rate 345m³/hr-576m³/hr
 - Design flow rate (given by engineer) of 441m³/hr
 - Turnover = 1.63hours
- > Flow meter!



Turnover

- > Quicker turnover generally means;
 - Better water quality
 - Less turbidity
 - Less pH and disinfectant variation
 - More rapid response to shock loading



Indoor pools and combined chlorine



Combined chlorine control

- > Bather education
- > Ventilation
- > No pool blankets
- > Breakpoint chlorination

Thank you!



**Government
of South Australia**

SA Health