Controlling Microbial Levels at a Water Park Case Study

The popular interactive waterfountain, or “sprayground,” at Seneca Lake State Park closed for the remainder of the summer on August 17, 2005, after the New York State Health Commissioner announced that an outbreak of cryptosporidiosis had been traced to the park. Cryptosporidiosis results from ingesting water contaminated with the protozoan *Cryptosporidium parvum*. Symptoms include diarrhea, vomiting, fever, and abdominal cramps.

The sprayground itself is an 11,000-square-foot deck with hundreds of individual water jets, spouts, and hoses. After being sprayed into the air, water flows back into a holding tank below the play area before being recycled through the jets once again. This type of water playground has become immensely popular because even small children can play there, without the risk of drowning commonly associated with swimming pools.

* Would *Cryptosporidium* be more or less resistant to physical and chemical methods of control than most other microbes?
* What level of microbial control would be most appropriate in this case: disinfection, sterilization, antisepsis, or decontamination?