

## Cryptosporidiosis Outbreak in Torbay, South Devon 1992 and 1995

1.1. An outbreak of cryptosporidiosis occurred in the Torbay area in August/September 1995. An Outbreak Control Team was convened to manage the outbreak, comprising representatives of the relevant Health Authority, Local Authorities, Public Health Laboratories and South West Water. 1.2. The Outbreak Control Team carried out a detailed descriptive epidemiological study into the possible causes of the outbreak and published a report which concluded that the outbreak was very strongly linked to the consumption of water from Littlehampston Water Treatment Works.

1.3. Based on that report and consideration of aspects of the operation and management of Littlehampston WTW the Company was charged with supplying water unfit for human consumption. The report of the Outbreak Control Team was ruled inadmissible and the Company was acquitted of all charges.

1.4. The Company's actions once the outbreak was recognised were timely, efficient and appropriate, except for the decision to delay the issue of advice to boil water pending the confirmation of analytical results despite other evidence being available implicating the water supply.

1.5. There were a number of aspects of the operation of the treatment works in the period up to the outbreak which are criticised, such as:

(a) the introduction of the Ranney 1 source directly in to rapid sand filters, bypassing the Sirofloc process, despite evidence that the source was probably liable to intermittent breakthrough of particulate matter, with the possible presence of cryptosporidial oocysts, from the River Dart;

(b) the failure to have due regard to changes in turbidity within the treatment process unless they exceeded the Internal Operating Value, and in particular the failure to monitor for cryptosporidium at times when the works was operating abnormally and turbidities were raised;

(c) inadequate provision for monitoring the turbidity of the filtrate from the individual rapid gravity filters and the Purac filters;

(d) the failure to recognise that the sand filtration process was not effective in removing the low levels of suspended particles passing through the Sirofloc process, and hence to investigate ways of improving filtration efficiency; and

(e) the operation of the Sirofloc process outside the designated operating criteria and sub-optimally, with a known defective scraper

1.6 The Company has since taken appropriate steps to minimise the risk of cryptosporidium oocysts passing through the treatment works.