CLAIMS

We claim:

1. A method for microbiological control in cooling systems wherein a recirculating fluid containing a biocide is passed through a fine filtration system containing membranes that have a pore size of 5 or less μm.

2. The method of claim 1 ~~wherem~~ wherein the recirculating fluid is diverted to a side stream then passed through the fine filtration system,

3. The method of claim 1 wherein the fine filtration system contain membranes that have a pore size from 0.01 to 0.10 μm.

4. The method of claim 1 wherein the fine filtration system contain membranes that are micro ultra-filtration membranes.

5. The method of claim 1 wherein the fine filtration system is back flushed to regenerate the membranes.

6. The method of claim 1 wherein the fine filtration system is air scrubbed to regenerate the membranes.

7. The method of claim 1 wherein the biocide is an oxidising biocide.

8. The method of claim ~~5~~ 7 wherein the oxidising biocide is one or more of the following: chlorine, hypochlorite, ClO2, bromine, ozone, hydrogen peroxide, peracetic acid and peroxysulphate.

9. The method of claim 1 wherein the biocide is a non-oxidising biocide.

10. The method of claim 9 wherein the non-oxidising biocide is one or more of the following: glutaraldehyde, dibromo-nitrilopropionamide, isothiazolone, quaternary ammonium, terbutylazine, polymeric biguanide, methylene bisthiocyanate and tetrakis hydroxymethyl phosphonium sulphate.

~~12~~11. The method of claim 1 wherein the biocide is a mixture of an oxidising biocide and a non-oxidising biocide.

~~13.~~12. The method of claim 1 wherein the biocide is one or more of the following: chlorine, hypochlorite, ClO2, bromine, ozone, hydrogen peroxide, oxygen based biocides, peracetic acid, peroxysulphate$_s$ glutaraldehyde, dibromo-nitrilopropionamide, isothiazolone, quaternary ammonium, terbutylazine, polymeric biguanide, methylene bisthiocyanate and tetrakis hydroxymethyl phosphonium sulphate.