



INTERNATIONAL WATER TREATMENT SPECIALISTS

## ACTION OF ORGANIC TREATMENT

The treatment will perform the following functions :-

1. Prevention of scale formation by colloidal action on residual hardness salts which enter with the feedwater. As the temporary hardness salts come out of solution, due to heat and permanent hardness salts, due to concentration and chemical precipitation, they are rendered into a fine flocculent mobile sludge which is carried out of the boiler by blowdown.
2. Absorption of residual oxygen, thus eliminating a cause of corrosion and giving an oxygen free steam. This absorption can take place as far back in the feed or condensate system as practicable and has the added advantage of giving protection from corrosion and scale in these parts, without any increase to the total dissolved solids content of the boiler water.
3. Conversion of the natural surface oxides to form a complex tannate/gamma ferric oxide film on the underwater metal surface which becomes part of the metal. The film is a chemical action needing surface oxides for reaction and, once stabilised, cannot increase in thickness, is non heat retarding, and by equalising the electrolytic potential of the metal, prevents corrosion. This film offers greater protection and is much more stable than the magnetite film produced by high alkalinities.
4. Sludge dispersant which has the ability to delay precipitation of hardness salts which would normally form scale. When these salts eventually precipitate in the presence of dispersant treatment, they come out of solution as fine crystallites which stay in suspension, so preventing heavy, sticky or dense compact sludge from forming and are easily purged through blowdown.