ELECTROLYTIC DE-FLUORIDATION PROCESS

Electrolytic de-fluoridation process is a water purification system suitable for fluoride affected area with water containing excess fluoride. The defluoridation process is based on the principle of electrolysis, using aluminium plate electrodes placed in the raw water containing excess fluoride. During the electrolysis, anode gets ionized and fluoride is removed by complex formation, adsorption, precipitation, coagulation and settling.

Electrolytic defluoridation (EDF) system uses totally new concept for treatment of safe potable water supply in fluoride affected areas, particularly in the villages which have no electric supply and do not have alternate safe water source for potable water supply.

ADVANTAGES/SALIENT FEATURES:

Simple to fabricate, easy to operate with minimum maintenance
Suitable for treatment of raw water with fluoride concentration up to 10 mg/L
Produces potable water with palatable taste as against the other available chemical treatment methods
Quantity of sludge produced is much less (60-70%) than conventional treatment methods
Simultaneous reduction in hardness and bacterial contamination in treated water
Treatment cost up to 40 cent per 1000 L
Can be operated using Solar Energy
Can be configured to any design capacity
Operation and maintenance by unskilled operator
Successfully implemented in the field and nearly 100 plants being operated in fluorosis endemic areas supplying safe drinking water to nearly 2 lakh people

Technology is ready to be licensed.

