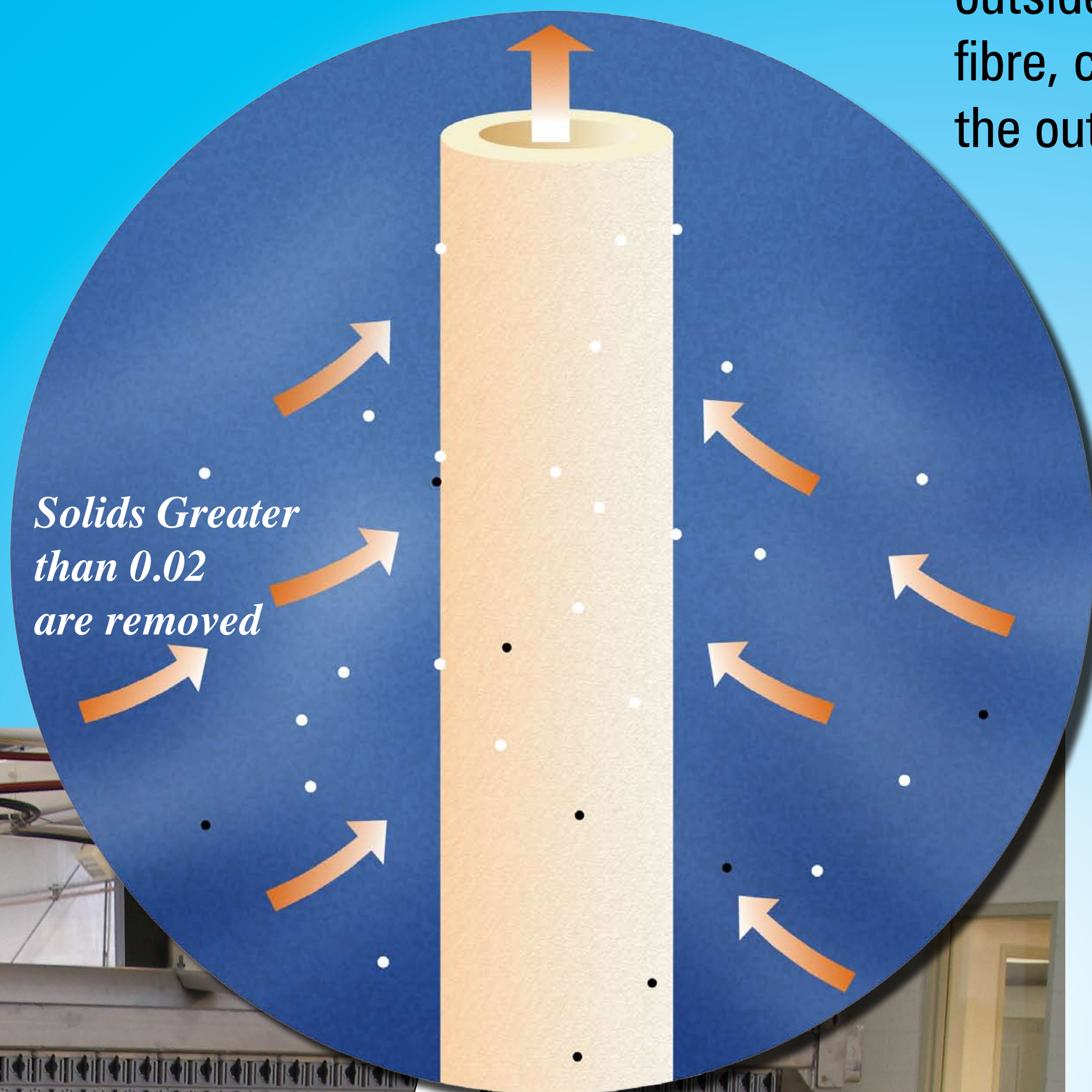


Low Pressure Membrane Operations

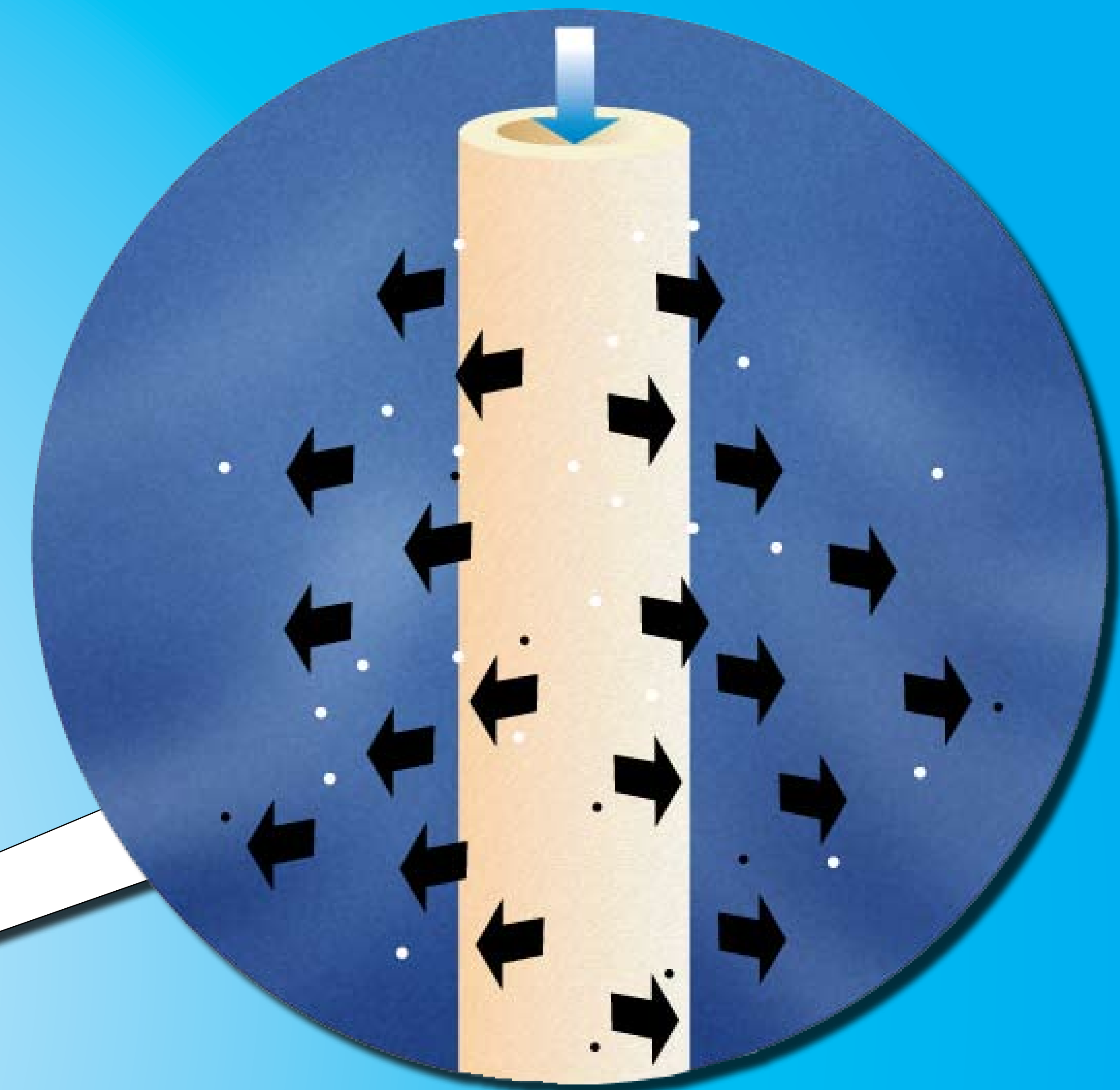
The particle removal is achieved by a ultrafiltration membrane system which has millions of microscopic pores. As the water passes through the microscopic pores, the suspended particles greater than **0.02** microns such as bacteria, and cyst, *cryptosporidium* oocysts and *giardia* cyst are all removed.

Normal Operations



As the feed stream flows from the outside to the inside of the hollow fibre, contaminants accumulate on the outer wall of each fiber

Backwash Operations



o Actual size of a Fiber Strand

Every one to two hours the process is **BACKWASHED** for a two minute period. Clean water is fed back through the fiber to dislodge the contaminants. Raw water is used to sweep the contaminants away. The backwash water flows to a second stage membrane system where it is filtered. The backwash water from this process goes to the Solar Beds. The water that goes through the bed is brought back to the front of the water treatment plant and several times a year the solids that are trapped on the bed are sent to the landfill.

Every thirty to sixty days, the membranes are soaked in caustic and/or acid for several hours to dislodge particles not removed by the backwashing process. The process is called **CLEAN IN PLACE**

