

modifications thereof are contemplated and are included within the spirit and scope of the invention as defined by the appended claims.

What is claimed is:

1. Apparatus for collecting and distributing an aqueous fluid from a plurality of points along a fluid flow path, comprising:

collecting means for continuously collecting said aqueous fluid from at least one of said plurality of collection points along the fluid flow path;
 filter means for receiving said collected aqueous fluid and filtering a portion of said fluid to provide a plurality of filtered sources of the aqueous fluid;
 means cooperating with said filter means for providing a source of unfiltered aqueous fluid from a portion of said collected aqueous fluid;
 valve means cooperating with said filtered sources of aqueous fluid for periodically halting the flow of one of said filtered sources of the aqueous fluid;
 piston means cooperating with said valve means and said filter means for backflushing the filter associated of said first filter means without disrupting the flow of said other sources of filtered aqueous fluid;
 first signal generating means for generating first electrical signals representative of the pressure of the unfiltered aqueous fluid after said collecting step but prior to said filtering step;
 second signal generating means for generating second electrical signals representative of the pressure of said filtered aqueous fluid in said plurality of filtered sources;
 process control means communicating with said apparatus for receiving said first and second electrical signals and for generating and applying thereto electrical command signals for controlling the sequence of operation of each of said means, said collecting means comprising;
 inlet means cooperating with said fluid flow path and responsive to command signals from said process control means for admitting said aqueous fluid from at least one of said plurality of collection points along the fluid flow path; and
 a pump interconnected to said valve means and responsive to command signals from said process control means for continuously pumping said aqueous fluid from at least one of said plurality of collection points along the fluid flow path.

2. The apparatus as described in claim 1, wherein said filter means comprises a filter unit having an inlet for receiving said fluid from said pump and a plurality of outlets for discharging said pumped fluid, one of said outlets discharging a portion of said fluid passing through said filter unit in an unfiltered condition, the remainder of said outlets having associated therewith filter elements of preselected particulate filter size for discharging the remainder of said fluid as a plurality of filtered sources of the fluid.

3. The apparatus as described in claim 2, wherein said means cooperating with said filter means to provide a source of unfiltered fluid comprises:

a throttle valve receiving said unfiltered fluid discharged from said filter unit and operable to permit only a selected flow of said unfiltered fluid there-through; and
 an outlet interconnected between said unfiltered fluid discharge outlet of said filter unit and said throttle valve for permitting a flow of that portion of said unfiltered aqueous fluid discharged from said filter

unit that exceeds the capacity of said throttle valve for providing a source of unfiltered aqueous fluid.

4. The apparatus as described in claim 2, wherein said filter unit comprises a dual-filter unit having a pair of filtered discharge outlets, and said valve means comprises a pair of valves each of which is interconnected to one of said filtered discharge outlets of said filter unit for receiving said flow of filtered fluid, said valves operable in response to command signals from said process control means, and wherein said piston means comprises a dual-acting piston interconnected between the inlets of said pair of valve and communicating with said filtered fluid flowing from each of said pair of filter unit discharge outlets, one of said valve closing in response to a command signal from said process control means and said dual-acting piston operable in response to command signals from said process control means for forcing said filtered fluid, the flow of which has been stopped by actuation of said one valve, back through said filter unit discharge outlet for backflushing said filter element associated therewith.

5. The apparatus as described in claim 2, wherein said filter elements are 10-micron filters.

6. Apparatus for collecting and distributing an aqueous fluid from a plurality of points along a fluid treatment flow path including the effluent therefrom, comprising first collecting means for continuously collecting said aqueous fluid from at least one of said plurality of collection points along the fluid treatment flow path;
 second collecting means for continuously collecting said aqueous fluid from the effluent from said fluid treatment flow path;
 first filter means for receiving said fluid from said first collection means and filtering a portion of said fluid;
 sources of the aqueous fluid from said flow path, first means cooperating with said first filter means for providing a source of unfiltered aqueous fluid from a portion of said fluid from said flow path;
 second filter means for receiving said fluid from said second collection means and filtering a portion of said effluent aqueous fluid to provide a plurality of filtered sources of the aqueous fluid from said effluent;
 second means cooperating with said second filter means providing a source of unfiltered aqueous fluid from a portion of said effluent fluid;
 first valve means cooperating with said filtered sources of aqueous fluid from said first filter means for periodically halting the flow of one of said filtered sources of the fluid;
 second valve means cooperating with said filtered sources of aqueous fluid from said second filter means for periodically halting the flow of one of said filtered sources of the effluent fluid;
 first piston means cooperating with said first valve means and said first filter means for backflushing the associated filter of said first filter means without disrupting the flow of said other sources of filtered aqueous fluid from said first filter means;
 second piston means cooperating with said second valve means and said second filter means for backflushing the associated filter of said first filter means without disrupting the flow of said other sources of filtered aqueous fluid from said first filter means;