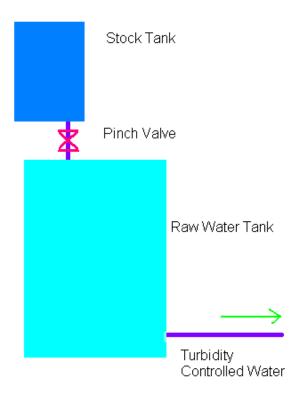
## **Raw Water Turbidity Process**

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In order to achieve specific levels of turbidity for experiments, a raw water feeder is used. The raw water tank turbidity is monitored with a turbidimeter and clay from the stock tank is added as needed with a pinch valve. The process control file turns on the valve of the clay stock feed whenever the turbidity of the raw water tank drops below the specified level. The valve then remains off until the turbidity drops below the specified level again.



## **Procedure for Maintenance of the Raw Water System**

Every time your team uses the turbidity controlled raw water system, you should perform the following checks:

- -Check to ensure the turbidimeter is clean and there is sufficient flow to the turbidimeter (you should be able to see water running past). If there is too much or not enough flow, first adjust the flow valve that delivers water to the recirculating system of tubes. If you must, then adjust the flow valve to the turbidimeter
- -Check to ensure that the aeration stone is aerating and is connected to an air source. The aeration stone can force small bubbles and dissolved air out of solution before it comes into contact with your experimental apparatus.
- -Ensure that the tap water system is turned on and is at a flow rate you wish.
- -Put the appropriate concentration of clay in the concentrated clay stock. This will be determined by your target turbidity and the on-off controller time points that you set.

**Process Controller File**