

TITLE: Potable Water Distribution System

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### A. Scope

This SOP describes the procedure to operate the Potable Water Distribution System in order to store water obtained from City Water and to distribute it to users throughout the plant. Lab space and offices are not on this system. They are directly off city water pressure, including safety shower in Prep Lab. This system supplies potable water to process area and D&D area, including all safety showers except Prep lab.

### B. Safety and Training Requirements

Refer to UF lab safety policies regarding equipment listed in section D below before starting any process work.

Review the location of fire extinguishers, fire blankets, safety showers, spill cleanup equipment and protective gear before beginning any process work.

During operations in the plant, the following safety gear will be utilized at all times:

- Safety Goggles ~~or Face Shield~~
- Protective Gloves
- Hard Hat

**CAUTION: Safety showers on the plant floor are NOT operational unless Potable Water system is up and running.**

### C. Related Documents and SOPs

1. ~~Potable Water Booster Pump manual XXXX~~
2. Safety Shower Manual XXXX

### D. Preparation/Materials/Equipment

1. Potable Water Tank (TS-9701)
2. Potable Water Booster Pump (PC-9701)
3. Pretreatment Safety Shower 1
4. Pretreatment Safety Shower 2
5. CIP Safety Shower
6. Fermentation Safety Shower
7. D&D Safety Shower

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**E. Detailed Procedure**

1. Initial valve positions settings are given in the table below.

CAUTION: Valves at safety showers should be always OPEN

Potable Water System				
Line	Line Number	Valve	Position	Check
City Water to Potable Water Tank	PW-9701-01-SS10	9701-V-01	Close	
Potable Water to Potable Water Booster Pump	PW-9701-05-SS10	9701-V-03	Close	
	Drain	9701-V-04	Close	
	Drain	9701-V-05	Close	
Potable Water Loop	PW-9701-06-SS10	9701-V-08	Close	
		9701-V-18	Close	
		9701-V-20	Close	
	Pressure Indicator	9701-V-06	Open	
	Pressure Indicator	9701-V-17	Open	
	PW-9701-18-SS10	9701-V-19	Close	
Potable Water to Downstream Use				
to the Electric Boiler	PW-9701-21-SS98	9701-V-33	Close	
		9301-V-16	Close	
		<del>9301-V-06</del>	<del>Close</del>	
to Pretreatment Safety Shower 1	PW-9701-09-SS98	9701-V-12	Open	
		9701-V-21	Open	
		9701-V-22	Close	
to Pretreatment Safety Shower 2	PW-9701-20-SS98	9701-V-16	Open	
		9701-V-29	Open	
		9701-V-30	Close	
to CIP Safety Shower	PW-9701-15-SS98	9701-V-15	Open	
		9701-V-31	Open	
		9701-V-32	Close	
to Fermentation Safety Shower	PW-9701-15-SS98	9701-V-13	Open	
		9701-V-27	Open	
		9701-V-28	Close	
to D&D Safety Shower	PW-9701-07-SS98	9701-V-11	Open	
		9701-V-23	Open	
		9701-V-24	Close	
Level Indicator		9701-V-02	Open	

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2. Assure the city water is in supply by verifying inlet water gauge (Sensus #73123888) is indicating flow by increasing number.
3. At HMI, set the Potable Water Tank (TS-9701) at 80% full in LIC-9701-01.
  - a. ~~LIT 9701-01 modulates LV 9701-01 in the city water inlet to the Potable Water Tank to maintain the set level in the tank.~~
4. ~~Open valve 9701-V-01 to fill the Potable Water Tank.~~
5. Assure PRV-9701-V-15 is set to 100 PSI.
6. ~~Open valves 9701-V-03, 08, 18, 20 to open the potable water supply loop.~~
7. At HMI, turn on the Potable Water Booster Pump (PC-9701).
8. Locally monitor the pressure downstream of the Potable Water Booster Pump in PI-9701-03 to be at 100 PSI.
9. At the HMI, monitor the potable water loop line pressure in PI-9701-14 to be at 100 PSI.