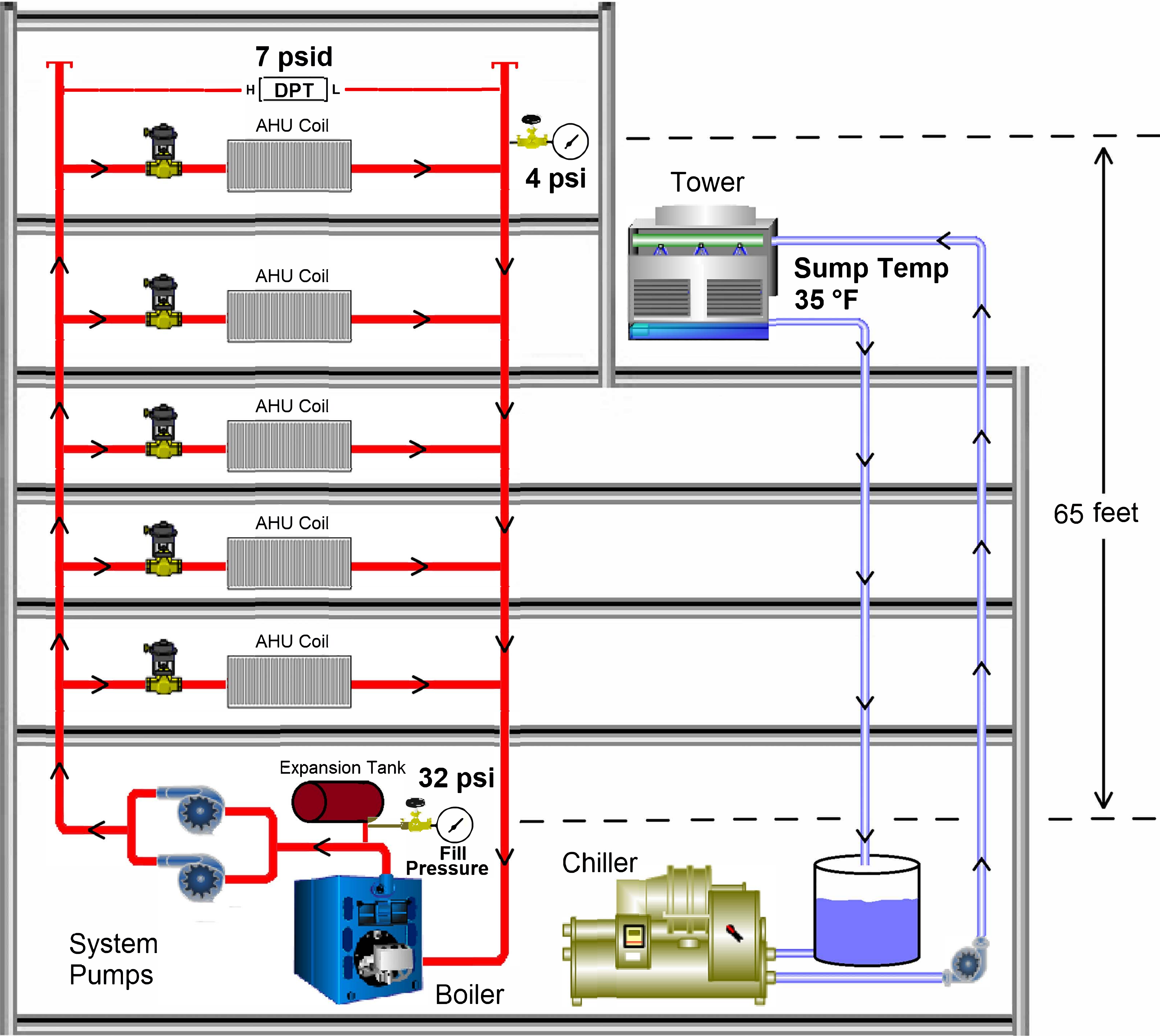


Important Numbers for Water

8.34 lbs / gallon
7.48 gallons / ft3
62.4 lbs / ft3
0.433 psi / ft rise
2.31 ft rise / 1 psi

Building Elevation Determines Fill Pressure

$65 \text{ ft tall bldg} * \frac{0.433 \text{ psi}}{\text{ft rise}} = 28 \text{ psi cold fill} + 4 \text{ psi} = 32 \text{ psi}$
18 feet tall => 8 psi cold fill + 4 psi = 12 psi
100 feet tall => 43.3 psi cold fill + 4 psi = 47 psi



HW system is a "closed loop," moving water in a circle. Think of it like a bicycle chain. The water going down the return pipe helps lift the water going up the supply pipe.

Chilled condenser water is an "open loop," lifting the water.