

Secondary Digester

From the primary digesters, the sludge overflows into a circular secondary digester. This is mainly a settling tank that thickens the sludge, removes water and holds biogas to be use later.

This digester has a floating gasholder and is 65-foot in diameter and is 20 feet deep. Normal operation maintains a constant liquid level with supernatant returned to the plant influent. The total volume of the secondary digester is 668,000 gallons (2070 gallons/inch) and the volume of the gasholder is 16,580 cu ft.



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The supernatant is manually removed three days a week to coordinate the added plant loading to low loading times. The supernatant is removed by manually opening a valve that drops the liquid level 30 inches, around 62,100 gallons. This is done over a five-hour period of time with a flow rate of 207 gpm.



Supernatant Sampling Point



Digester Piping

By slowly mixing with plant influent during low loading times, the high strength supernatant is diluted to a point that it has no impact upon overall plant operations. If the supernatant flow rate is too high the high loading could upset the microbiology of the activated sludge system.