

Table 4-27 Sewage Treatment Plant Unit Combinations and Efficiencies

Treatment plant	Total Percent Reduction --Approximation	
	Suspended Solids	Biochemical Oxygen Demand
Sedimentation plus sand filter	90-98	85-95
Sedimentation plus standard trickling filter, 600 lb BOD/acre-ft maximum loading	75-90	80-95
Sedimentation plus single-stage high-rate trickling filter	50-80	35-65 ^a
Sedimentation plus two-stage high-rate trickling filter	70-90	80-95 ^a
Activated sludge	85-95	85-95
Chemical treatment	65-90	45-80
Preaeration (1 hour) plus sedimentation	60-80	40-60
Plain sedimentation	40-70	25-40
Fine screening	2-20	5-10
Stabilization (aerobic) pond	—	70-90
Anaerobic lagoon	70	40-70

^aNo recirculation. Efficiencies can be increased within limits by controlling organic loading, efficiencies of settling tanks, volume of recirculation, and the number of stages; however, effluent will be less nitrified than from standard rate filter, but will usually contain dissolved oxygen. Filter flies and odors are reduced. Study first cost plus operation and maintenance.

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