extended aeration process

Wastewater treatment processes that occur in suspended or attached growth treatment configurations in an aerobic, mixed environment; aerobic and facultative microorganisms biochemically convert non-settleable (suspended, dissolved, and colloidal) organic materials to cell mass and CO_2; typically includes nitrification of ammonium; typically followed by clarification and sludge return; excess cell mass is not wasted, thus resulting in long sludge ages, digestion of excess cell mass in the aeration chamber with subsequent accumulation of digested fixed solids; process requires a higher rate of oxygen delivery for oxidation of cell mass and relatively lower organic loading per unit volume of aeration tank capacity; see also activated sludge process.