IDEAL INOCULUM CHARACTERISTICS

It is suggested that the sludge with SVI less than 15 mL/g should be preferred because sludge with higher SVI gives problem of sludge buoying. Intermittent operation of the reactor is suggested as beneficial for initial days to overcome problem of sludge buoying. It also helps in increasing the pH inside the reactor [Ghangrekar, 1997].

Sludge with concentration of 30 to 40 kg TS/m^3 exhibit the highest methanogenic activity [Zeeuw and Lettinga, 1983]. However, the thicker types are more preferred, since a longer sludge retention time could be maintained [Hulshoff and Lettinga, 1986]. With thinner types of sludges, excessive expansion of sludge bed may result in washout of sludge, and a longer time may be required for sludge granulation. The amount of inoculated digested sludge required for reactor start-up may be 10 to 30 % of reactor volume [Hickey *et. al.*,1991].