

## Chapter VII

## CONCLUSION

From the experimental result of the fluidized pellet-floc bed clarifier, for turbid water purification showed the following conclusions as:

1. Higher PACl dosage produced less residual turbidity than lower PACl dosage. Thus, at lower PACl dosage required more anionic polymer dosage for producing better clarified water.

2. Higher anionic polymer dosage produced less residual turbidity than lower anionic polymer dosage. So, at lower anionic polymer dosage required more PACl dosage for producing better clarified water.

3. Diameter of pellet flocs were between 0.2 to 0.3 mm. and settling velocity of pellet flocs were between 40 to 70 cm./min. Thus all of the experimental parameters of this investigation were suitable for producing good pellet flocs as results.

4. At the upflow velocity of 40 cm./min. tend to require lower speed of paddle agitation, but at the upflow velocity of 30 cm./min. tend to require higher speed of paddle agitation, especially in low PACl and polymer dosages, for producing good clarified water by the process.

5. The fluidized pellet-floc bed clarifier could handle

with high and low-concentration suspension. Pellet-flocculation technique for water purification in the investigation indicated that residual turbidity for high-concentration suspension in seeding step was around 3 NTU. And in the 50 NTU turbid water treatment step could produce residual turbidity of about or less than 3 NTU. as result.

6. Treated water producing rate of pellet-flocculation clarification was higher than the conventional sedimentation tank of about 9 times and higher than the solids contact clarifier of about 3 times. Thus, leading to require smaller space and size of the clarifier for water purification by pellet-floc formation process than by using conventional and solids contact clarifier system.

ศูนย์วิทยทรัพยากร  
จุฬาลงกรณ์มหาวิทยาลัย