VII CONCLUSIONS

From the results of study the following conclusions may be derived.

1) Tapioca starch waste was successfully treated at ambient temperature using the rock filled anaerobic filter.

2) Under controlled environment conditions the filter could receive organic loading as high as 4 kg COD/cu.m./day for a detention period of 24 hours.

3) The COD removal efficiency was higher than 92 percent over a wide range of waste strength from 1,000 to 8,500 mg COD/l.

4) The process still functioned efficiently with no control of pH and nutrient. At a COD loading of 1.4 kg/cu.m./day and a detention period of 56 hours, a COD removal of 96 percent could be achieved.

5) Through out the 62 days of operation there was no need for biological sludge wasting. The suspended solids concentration in the filter remained practically constant.

6) The effluent was turbid having suspended solids in a range between 100 and 150 mg/l. clarification of the effluent would be required.

7) The treatment could be stopped for 15 days and the process quickly regained its original efficiency.

8) Sudden doubling the organic loading did not materially affect the process efficiency .

9) There was a sulfide odor problem throughout the experiment.

10) Though the process could remove upto 95 percent COD the effluent was still too high in organic content to meet the required standard due to the original high COD value . Consequently, the effluent should be further treated using any conventional aerobic process.