Voratat Iamtrakul 2007: Development of Computer Program for Design of Wastewater Treatment System Using VISUAL BASIC Language. Master of Engineering (Environmental Engineering), Major Field: Environmental Engineering, Department of Environmental Engineering. Thesis Advisor: Associate Professor Winai Liengcharernsit, D.Eng. 105 pages.

Nowadays, many companies often neglect to manage their waste and wastewater because they do not consider them as one of their production and business problems, mainly due to its high cost of operation. In this globalization period; where information are easily spread, the role of public community become more important than it used to be in the past, as well as the increase in environmental concerns in many aspects; this ignorance will bring such an organization a big unsolvable problems, i.e. the decrease in company reliability, then the product and so on. Therefore, well managing the waste and wastewater, with the right and most effective way, is the must and crucial concern for every company, especially the ones which are in the industrial sector.

The Design Process of Wastewater Treatment System have many calculation steps and it will take long time to adjust the parameters. This thus then takes long time to design a process. The purpose of this thesis is to develop a computer program that help to design a complete Wastewater Treatment System. Users will not waste the time to use several programs to get the complete design. The time used to design will also be reduced because computer can process and display the result very rapidly.

Software Development using Microsoft Visual Basic 6.0 will provide the Main Menu which comfort the users to choose to choose the initial treatment and the second treatment. Users are able to input and adjust the parameter directly on the screen. The results of the calculation which comprised of characteristics of the system, the size of reaction tank , pictures with Hydraulic Profiles can be displayed on the screen or printed via the printer. Moreover, all data will be stored in the data file, and can be retrieved for calculation. Users are able to adjust the data with no interference to the program.

After using the program, when compared with normal calculation, It can be seen that the result from the program is very closely to result of traditional calculation while the time took for calculation is much lower.

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