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In Thailand, termite is the one of the most dangerous insects which ruins the national economy both direct and indirect ways. It is the main factor of the ruin home, construction, home furniture and things that made from wood and cotton. The damage caused by these termites worths over 100 million baht per annual.

This research work focuses on the analysis of pipe treatment system for efficiency improvement in termite control. Experiments have been carried out to evaluate loss coefficient and time consuming for termite control in one loop and two loop systems. This loss coefficient was used to develop a computer program to calculate appropriate pressure and time for efficient termite control. It was found that the results obtained from experiment are in consistent to computational results with less than 2% error. Moreover commercial Computational Fluid Dynamics program was used to simulate the distribution of water from nozzle screwed on pipe surface. It was found from the simulation that with the new design of nozzle, the spreading angle of water was increased by more than 7 degrees.

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