Abstract

This project applied Clean Technology at Thainamthip Co.,Ltd., which was a soft drink production plant that produced Coca-Cola soft drink. This project started from studying and collecting information about production, as well as process input and output. Production process was analyzed through all sub processes in order to investigate production losses and other problems that could be solved by Clean Technology. The expected benefits from implementing Clean Technology were cost reduction in production, reduction of environmental impact, saving of natural resources, load reduction of wastewater treatment system, increase in workplace safety, and enhancing organizational competitiveness.

Four main process diagrams have been created for treated water production, syrup water production, glass bottle production line and plastic bottle production line. After analysis and prioritization of problems, it was found that the main problem was concerned with water issue such as waste water, ground water, soft water and treated water. The loss of water was detected in the process of washing plastic bottles and contributed to 45% loss of water in this process. The improvement was introduced by improving water rail system and adding new drain pipe. This could reduce the loss of water by about 34%. In addition, wastewater from washing soft drink pipe could be reused in other activities. This could help reduce the cost of water production and cost of wastewater treatment. The results were found to satisfy the desired objectives.