

ABSTRACT

CV. Sari Teknik is manufacture companies that moves in producing tools and component needed by cement industry. In means to maintain existence of the company in industry, company should be able to raise its efficiency and productivity. On existing condition of company's production floor there are problems that caused the inefficiency of existing facility layout such as material movement which is far enough. The inefficiency caused the huge activity frequency on material handling.

The redesigning in facility layout is one of the efforts made to raise the efficiency and production productivity on CV. Sari Teknik. In this research, facility layout is designed based on process layout type which is criteria being used is minimizing material movement moment score. The designing process of proposed facility layout has been done by using CRAFT algorithm in WinQSB software version 2. Modeling and simulation is also created to compare the performance of production layout between existing and proposal using ProModel 2001 software.

With this research, a better efficiency facility layout has been obtained, which is proved by the reduction in material movement moment in the amount of 39.50% compared to existing facility layout. Besides, with model and simulation, an improvement in production productivity also obtained in the amount of 27.95%. In conclusion, the proposed facility layout can increase the efficiency and production productivity of the company.

Keyword : Layout, CRAFT Algorithm, Movement Moment, Simulation