

DETERMINE THE OPTIMAL NUMBER OF EMPLOYEES WITH NASA-TLX METHOD (CASE STUDY: PLANNING & MATERIAL WAREHOUSE DEPARTMENT, PT. PETROKIMIA GRESIK)

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ABSTRACT

In every kind of jobs, workload adjustment has become an important factor. The adjustment between mental workload and physical workload have to be keep balance so that the employees will not feel unbalance and caused the decreased of work motivation, reduced concentration, got injured, and so on. PT. Petrokimia Gresik as one of the biggest fertilizer producer in Indonesia, also have to controlling the workload adjustment from its employees. PT. Petrokimia has many departments inside, even though hard to execute but the company must be able to balance both the workload. One of the departments that also have the unbalance workload is Planning & Material Warehouse Department (PMW). For measuring the workload, it can use NASA-TLX method for mental workload, and the government's method, KEP/75/M.PAN/7/2004 for physical workload, then delivered the optimal amount of employees. There are six indicators inside NASA-TLX that is Mental Needs, Physical Needs, Time Needs, Work performance, Frustration Level, and Mental-Physical Effort. At the PMW Department there are 32% for work performance indicator, 24% for time needs indicator, 18% for mental-physical efforts indicator, 14% for mental needs indicator, and also 6% for physical needs and frustration level at each. From the calculation of physical workload, there is changing of employee number from 54 employees to 58 employees. It is because of there are some addition employee or the merged between two jobs into one.

Keyword: Workload Calculation, NASA-TLX, Ministerial Decision, Petrokimia