

INTISARI

Analisis Beban Kerja dalam Menentukan Jumlah Tenaga Kerja yang Optimal di bagian Departemen *Polyester Staple Fiber* dengan Metode *Full Time Equivalent* (Studi Kasus di PT. Indonesia Toray Synthetics)

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Perusahaan manufaktur dituntut untuk mengelola sumber daya manusia secara efektif agar produktivitas tetap optimal. Salah satu pendekatan yang digunakan adalah analisis beban kerja, yang berfungsi menentukan jumlah tenaga kerja ideal sehingga tidak terjadi pemborosan maupun kekurangan tenaga. Penelitian ini dilakukan pada Departemen *Polyester Staple Fiber* (PSF) *Polymer Batch* PT Indonesia Toray Synthetics, yang sering mengalami kekurangan tenaga kerja sehingga harus meminjam karyawan dari divisi *Polymer Continuous*. Tujuan penelitian ini adalah untuk mengetahui kondisi beban kerja karyawan apakah termasuk kategori *underload*, *normal*, atau *overload*, serta menentukan jumlah tenaga kerja optimal menggunakan metode Full Time Equivalent (FTE). Metode penelitian meliputi observasi waktu siklus kerja dengan stopwatch study, penilaian allowance, dan rating factor pada lima stasiun kerja utama: *DCS*, *Charging Raw Material*, *USG Cutter*, *Bunker*, dan *Packaging Bag Chip*. Hasil perhitungan menunjukkan bahwa Waktu Total Pekerjaan (WTP) seluruh stasiun kerja mencapai 33.288,696 jam/tahun, sedangkan Waktu Kerja Efektif (WKE) per operator adalah 861 jam/tahun. Berdasarkan perhitungan tersebut, kebutuhan tenaga kerja ideal adalah 38 orang (FTE 38,66). Namun jumlah tenaga kerja aktual hanya 27 orang, sehingga terdapat kekurangan 11 orang. Kekurangan terbesar terjadi pada *USG Cutter* (-4 orang) dan *Bunker* (-3 orang), sedangkan *Packaging Bag Chip* relatif normal. Penelitian ini merekomendasikan penambahan tenaga kerja pada stasiun kerja kritis serta evaluasi sistem distribusi tenaga kerja antar *shift*.

Kata kunci: Analisis Beban Kerja, *Full Time Equivalent* (FTE), Tenaga Kerja Optimal, Waktu Total Pekerjaan (WTP), Waktu Kerja Efektif (WKE).

ABSTRACT

Workload Analysis to Determine the Optimal Number of Workers in the Polyester Staple Fiber Department Using the Full-Time Equivalent Method

(Case Study at PT. Indonesia Toray Synthetics)

by

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Manufacturing companies are required to manage human resources effectively to maintain optimal productivity. One approach used is workload analysis, which functions to determine the ideal number of workers to avoid waste or shortages. This research was conducted at the Polyester Staple Fiber (PSF) Polymer Batch Department of PT Indonesia Toray Synthetics, which often experiences labor shortages and has to borrow employees from the Polymer Continuous division. The purpose of this study was to determine the condition of employee workloads, whether they are categorized as underload, normal, or overload, and to determine the optimal number of workers using the Full Time Equivalent (FTE) method. The research methods included observing work cycle times with a stopwatch study, assessing allowances, and rating factors at five main work stations: DCS, Charging Raw Material, USG Cutter, Bunker, and Packaging Bag Chip. The calculation results showed that the Total Work Time (WTP) for all work stations reached 33,288.696 hours/year, while the Effective Work Time (WKE) per operator was 861 hours/year. Based on these calculations, the ideal workforce requirement is 38 people (FTE 38.66). However, the actual workforce was only 27, resulting in a shortage of 11. The largest shortages occurred in the USG Cutter (-4 people) and Bunker (-3 people), while Packaging Bag Chip was relatively normal. This study recommends increasing staffing at critical workstations and evaluating the workforce distribution system between shifts.

Keywords: *Workload Analysis, Full Time Equivalent (FTE), Optimal Workforce, Total Work Time (WTP), Effective Work Time (WKE).*