

ABSTRAK

PT Petrokimia Gresik merupakan perusahaan yang memproduksi produk pupuk dan bahan kimia berbagai jenis dan terlengkap di Indonesia sebagai solusi agroindustri. Jenis produk yang diproduksi antara lain produk pupuk dan *non* pupuk, salah satunya produk kapur pertanian yang dalam proses produksinya menggunakan tenaga manusia. Berdasarkan pengamatan diketahui permintaan konsumen tidak terpenuhi dan ditemukan adanya *waste* yaitu produk *defect* kantong sobek sebanyak 1110 kantong dan jahitan kantong terbuka sebanyak 646 kantong selama September 2022 hingga Februari 2023. Berdasarkan permasalahan tersebut dilakukan pendekatan *lean manufacturing* dengan menggunakan *tools current state value stream mapping* untuk mengetahui proses produksi pada rantai pengantongan saat ini dan PAM (*process activity mapping*) untuk mengetahui klasifikasi aktivitasnya serta dilakukan identifikasi sembilan *waste (E-DOWNTIME Waste)*. Berdasarkan hasil identifikasi dan analisa lebih lanjut menggunakan diagram pareto, ditemukan *waste* yang paling sering terjadi adalah *waste defect*, *waste not utilizing employee knowledge, skills and abilities* dan *waiting* yang menyebabkan jumlah *production lead time* bertambah. Setelah itu, dilakukan analisa lanjutan menggunakan *fishbone diagram* dan dilakukan wawancara untuk pembuatan usulan perbaikan berupa penerapan 5R, SOP, kartu penjadwalan *maintenance* mesin jahit, penambahan terpal pada dinding bagian atas dan perubahan alur proses. Hasil usulan tersebut dapat mengurangi waktu *non value added (NVA)* dan *necessary but non value added (NNVA)* sebesar 92,52 menit dan mengurangi *waste* yang terjadi pada rantai pengantongan kapur pertanian. Selanjutnya, hasil usulan tersebut dibuat PAM perbaikan dan dipetakan pada *future state value stream mapping* untuk mengetahui perbaikan dari aliran produksi.

Kata kunci: *lean manufacturing, value stream mapping, process activity mapping, E-DOWNTIME waste, pareto diagram, fishbone diagram*

ABSTRACT

PT Petrokimia Gresik is a company that produces fertilizer products and chemicals of various types and is the most complete in Indonesia as an agro-industrial solution. The types of products produced include fertilizer and non-fertilizer products, one of which is agricultural lime products which in the production process uses human labor. Based on observations, it is known that consumer demand was not met and waste was found, namely defec products, torn bags as many as 1110 bags and open bag stitches as many as 646 bags from September 2022 to February 2023. Based on these problems, a lean manufacturing approach was carried out using current state value stream mapping tools and identifying waste to find out the production process on the current bagging floor and PAM (process activity mapping) to determine the classification of activities and identified nine wastes (E-DOWNTIME Waste). Based on the results of identification and further analysis using a pareto chart, it was found that the most common waste was waste defect, waste not utilizing employee knowledge, skills and abilities and waiting which caused the production lead times to increase. After that, performed advanced analysis using fishbone diagram and conducted interviews for making proposals for improvement in the application of 5R, and SOP, Sewing Machine Maintenance Scheduling Card, Addition to the upper wall and change the process flow. The proposal could reduce the time of non-value added (NVA) and necessary but non-value added (NNVA) by 92,52 minutes and reduce the waste that occurs on the landscape floors. Next, The results of the proposal were made a repair PAM and printed on the future state value stream mapping to find out improvements from the production flow.

Keywords: lean manufacturing, value stream mapping, process activity mapping, E-DOWNTIME waste, pareto diagram, fishbone diagram

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