ABSTRAK

PT ABC bergerak di bidang industri manufaktur memproduksi herbisida selektif sediaan cair. PT ABC memiliki dua bagian dalam departemen produksi yaitu bagian formulasi dan repack. Permasalahan yang sering terjadi adalah proses repack herbisida kemasan 40 mL mengalami kehilangan herbisida dan pelaporan output WIP setiap akhir shift tidak direkam secara baik oleh operator. Sejak bulan Januari sampai Juni 2023 terjadi kehilangan herbisida sebanyak 249 liter atau 1,42% dimana ini melebihi batas maksimal kehilangan herbisida sebesar 1%. Penelitian ini bertujuan untuk mengidentifikasi waste pada proses repack herbisida kemasan 40 mL beserta faktor penyebab terjadinya, serta usulan perbaikan dengan menggunakan pendekatan Lean Manufacturing. Penelitian diawali dengan pengumpulan data, seperti alur proses, waktu prores, observasi dan wawancara Brainstroming. Selanjutnya dilakukan pemetaan aliran ptoses menggunakan Value Stream Mapping (VSM) dan Process Activity Mapping (PAM). Lalu dilakukan identifikasi waste dan faktor penyebabnya menggunakan diagram fishbone. Setelah diketahui waste dan penyebabnya, dibuatkan usulan perbaikan guna meminimasi waste. Jenis waste yang teridentifikasi adalah penggunaan bahan baku berlebih dan proses tidak tepat (inappropriate processing) dengan faktor penyebab utama tercecernya herbisida saat proses transfer ke hopper akibat penggunaan handpump dan kesalahan hitung saaat proses menghitung WIP yang dilakukan secara manual. Lalu diberikan usulan perbaikan mengganti drum dengan IBC yang diberikan dudukan serta adaptor

keran sesuai desain, pengadaan sensor hitung otomatis, pengadaan papan untuk penyusunan WIP, serta APD, pelatihan dan sosialisasi SOP untuk menunjang kinerja operator.
Kata kunci: herbisida, repack, lean manufacturing, value stream mapping, process activity mapping, fishbone

ABSTRACT

PT ABC is engaged in the manufacturing industry producing liquid selective herbicides. PT ABC has two sections in the production department, namely the formulation and repack sections. The problem that often occurs is that the process of repacking 40 mL herbicide packages experiences loss of herbicide and the WIP output reporting at the end of each shift is not recorded properly by the operator. From January to June 2023 there was a herbicide loss of 249 liters or 1.42%, which exceeds the maximum herbicide loss limit of 1%. This research aims to identify waste in the 40 mL herbicide repack process along with the factors causing it, as well as suggestions for improvements using the Lean Manufacturing approach. The research began with data collection, such as process flow, process time, observation and brainstorming interviews. Next, process flow mapping is carried out using Value Stream Mapping (VSM) and Process Activity Mapping (PAM). Then identify waste and its causal factors using a fishbone diagram. After knowing the waste and its causes, proposals for improvement are made to minimize waste. The type of waste identified is the use of excess raw materials and

inappropriate processing, with the main factors being the spillage of herbicide during the transfer process to the hopper due to the use of a handpump and calculation errors during the manual WIP calculation process. Then recommendations for improvements were given to replace the drum with an IBC which was provided with a stand and tap adapter according to the design, procurement of automatic counting sensors, procurement of boards for preparing WIP, as well as PPE, training and dissemination of SOPs to support operator performance.
Keywords: herbicide, repack, lean manufacturing, value stream mapping, process activity mapping, fishbone