ABSTRAK

PT. PETROKIMIA GRESIK merupakan perusahaan yang bergerak dibidang produksi pupuk dan bahan kimia lainnya, dituntut untuk beroperasi secara efektivitas dan efisiensi. Dari hasil brainstroming dengan pihak manajemen produk pupuk Phonska merupakan produk pupuk yang paling banyak mengalami kegagalan dalam prosesnya. Dari hasil penyebaran kuisioner diperoleh *waste* kritis antara lain *defect, excessing transportation* dan *waiting* yang dapat menghambat kelancaran proses produksi. Penelitian ini berupaya untuk mengidentifkasi *waste* yang berpengaruh terhadap kualitas produk pupuk Phonska beserta penyebabnya dan juga memberikan usulan penerapan metode perbaikan kualitas di PT. PETROKIMIA GRESIK.

Pendekatan yang dipakai adalah pendekatan *Lean Six Sigma* dengan pemahaman kondisi perusahaan digambarkan dalam *Big Picture Mapping*.

Pemborosan diidentifikasi dengan kuisioner *seven waste*, lalu dilakukan pemetaan secara detail dengan *VALSAT*. Dari hasil penyebaran kuisioner, didapatkan jenis pemborosan yang terjadi rata-rata adalah *Defect* (4,64), *Waiting* (3,71), *Transportasi* (2,43). Skor rata-rata hasil dari kuisioner tersebut dikonversikan kedalam matriks *VALSAT*, didapatkan *mapping tool* yang dominan yaitu *Process activity mapping* (106,73), *Supply chain response matrix* (64,24), *Quality filter mapping* (46,04).

Pada tahap akhir diberikan usulan perbaikan berdasarkan 3 *mapping tool* yang nilai bobotnya tertinggi. Usulan diberikan berdasarkan masing-masing peneyebabnya.

Kata kunci : *Lean Sig Sigma, Big Picture Mapping, Seven Waste, Value Stream Analysis Tools*

ABSTRACT

PT. Petrokimia Gresik is a company engaged in the production of fertilizers and other chemicals. where effectiveness and efficiency is very important and affects the condition of the company. From the results of brainstorming Phonska fertilizer products are the most fertilizer products have failed in the process. For the questionnaire was conducted to determine the critical *waste* obtained among other *defects, excessing transportation* and *waiting*. In The process allows for the waste stream that inhibit smooth production process. So how to reduce waste to fertilizer production process by identifying waste Phonska that affect the quality of fertilizer products Phonska along with the cause and also propose the application of quality improvement methods in PT. Petrokimia Gresik.

Efforts to reduce *waste* can be done by minimizing *waste*. An approach is needed to eliminate the waste that occurs, one of them with a *Lean Six Sigma* approach. Understanding of the conditions described in the company's *Big Picture Mapping*.

Wastage of *seven waste* identified by questionnaire, and then do the arrangement in detail with *VALSAT*. From the results of questionnaires, found the type of *waste* that occurs on average is *defect* (4.64), *waiting* (3.71), *transportation* (2.43). The mean score results of the questionnaire were converted into *VALSAT matrix*, obtained dominant mapping tool is *Process activity mapping* (106.73), *Supply chain response matrix* (64.24), *Quality filter mapping* (46.04).

Then the final stage 3 make improvements based *mapping tool*. Obtained from the results obtained that takes into account the transport activity, as is the link between the process and the next process to perform inspections on the overall raw material comes. This can reduce the risk due to the increase in raw material leadtime unfit processed.

Keywords: *Lean Sig Sigma, Big Picture Mapping, Seven Waste, Value Stream Analysis Tools*