

ABSTRAK

Salah satu permasalahan yang dihadapi oleh PT Semen Indonesia (Persero) Tbk Pabrik Tuban pada penyiapan bahan baku atau proses *crusher* adalah tidak tercapainya target produksi yang disebabkan terjadinya tingginya *downtime* mesin yang terjadi. Tingkat *downtime* mesin yang tinggi disebabkan oleh rendahnya efektivitas mesin sehingga mesin tidak dapat bekerja secara maksimal. Berdasarkan hasil perhitungan efektivitas mesin *crusher* selama tahun 2019 dengan metode *Overall Equipment Effectiveness* (OEE) diperoleh rata-rata pada masing-masing mesin adalah mesin 231CR1 sebesar 52,85%, mesin 251CR1 sebesar 19,62%, mesin 232CR1 sebesar 74,92%, mesin 252CR1 sebesar 23,79%, mesin 233CR1 sebesar 67,03%, mesin 253CR1 sebesar 23,24%, mesin 234CR1 sebesar 32,73%, mesin 254CR1 sebesar 15,17%. Nilai OEE tersebut belum mencapai standar yang ditentukan oleh *Japan Institute of Plant Maintenance* (JIPM) yaitu 85%. Faktor kerugian terbesar pada mesin-mesin *crusher* adalah mulai dari *idling and minor stoppages losses*, *reduce speed losses*, hingga *breakdown losses*. Rekomendasi perbaikan yang diberikan diantaranya melakukan koordinasi dengan pihak *United Tractors Semen Gresik* (UTSG) terkait penjadwalan perjalanan *dump truck*, melakukan koordinasi dengan lini produksi *raw mill* terkait *storage*, melakukan pembersihan rutin pada *hopper* maupun *belt conveyor*, melakukan perawatan rutin pada *dump truck*, *eskavator*, dan timbangan *truck*, serta melakukan pelatihan pada operator lapangan, supir *dump truck*, dan operator *eskavator*.

Kata kunci: *Total Productive Maintenance* (TPM), *Overall Equipment Effectiveness* (OEE), *Six big losses*, Mesin *crusher*.

ABSTRACT

One of the problems faced by PT Semen Indonesia (Persero) Tbk Tuban Factory in the preparation of raw materials or the crusher process is the failure to achieve production targets due to the high machine downtime that occurs. The high level of machine downtime is caused by the low effectiveness of the machine so that the machine cannot work optimally. Based on the results of calculating the effectiveness of the crusher machine during 2019 with the Overall Equipment Effectiveness (OEE) method, the average value for each machine is 52.85% for 231CR1 machine, 251CR1 machine is 19.62%, 232CR1 machine is 74.92%, 252CR1 machines is 23.79%, 233CR1 machines is 67.03%, 253CR1 machines is 23.24%, 234CR1 machines is 32.73%, 254CR1 machines is 15.17%. The OEE value has not reached the standard set by the Japan Institute of Plant Maintenance (JIPM), which is 85%. The biggest loss factors for crusher machines are from idling and minor stoppages losses, reduced speed losses, to breakdown losses. Recommendations for improvement include coordinating with United Tractors Semen Gresik (UTSG) regarding dump truck trip scheduling, coordinating with raw mill production lines regarding storage, performing routine cleaning of hoppers and conveyor belts, performing routine maintenance on dump trucks, excavators, and truck scales, as well as conducting training on field operators, dump truck drivers, and excavator operators.

Keywords: Total Productive Maintenance (TPM), Overall Equipment Effectiveness (OEE), Six big losses, Crusher Machine.