

ABSTRAK

Penelitian ini bertujuan mengevaluasi kinerja mesin *Filter Press* di PT. SMART Tbk, Belawan menggunakan metode *Overall Equipment Effectiveness* (OEE), mengetahui nilai faktor *six big losses* yang mempengaruhi rendahnya nilai OEE pada mesin *Filter Press*. Hasil OEE periode Januari–Oktober 2024 menunjukkan nilai berkisar antara 79,22%–91,84%, dengan nilai terendah pada Oktober yaitu 79,22%. Faktor utama penyebab penurunan OEE adalah *Idling and Minor Stoppages* sebesar 33,10%. Analisis *cause and effect diagram* mengidentifikasi lima faktor utama penyebab rendahnya efisiensi, dari manusia adalah penguasaan mesin dan fokus berkurang, dari mesin adalah terlambatnya pergantian part mesin dan pergantian *filter cloth*, kerusakan mesin, mesin sering breakdown, dari material adalah keterlambatan material, sulit mencari *spare parts* dan adanya material yang tidak terkristal dengan sempurna, dan dari metode adalah proses kristalisasi yang tidak sempurna alat yang digunakan team maintenance tidak lengkap dan kurang terjadwalnya *preventive maintenance*.

Kata Kunci: *Overall Equipment Effectiveness (OEE), Six Big Losses, Idling & Minor Stoppages Losses, Filter Press, Cause and effect Diagram*

ABSTRACT

This research aims to determine the performance of the Filter Press machine at PT. SMART Tbk, Belawan using the Overall Equipment Effectiveness (OEE) method, to determine the value of the six big Loss factors that affect the low OEE value on the Filter Press machine. The OEE results for the January-October 2024 period showed values ranging from 79,22%–91.84%, with the lowest value in October, which was 79.22%. The main factors causing the decline in OEE were Idling and Minor Stoppages of 33.10%. The cause and effect diagram analysis identified five main factors causing low efficiency, from humans is machine mastery and reduced focus, from machines late replacement of machine parts and replacement of filter cloth, machine damage, machines often breakdown, from materials is material delays, difficulty finding spare parts and the presence of materials that are not perfectly crystallized, and from the method is the imperfect crystallization process, the tools used by the maintenance team are incomplete and the preventive maintenance schedule is lacking.

Keywords: *Overall Equipment Effectiveness (OEE), Six Big Losses, Idling & Minor Stoppages Losses, Filter Press, Cause and effect Diagram*