

ABSTRAK

Pengelolaan lingkungan hidup adalah usaha secara sadar untuk memelihara atau memperbaiki mutu lingkungan agar kebutuhan dasar makhluk hidup dapat terpenuhi dengan sebaik-baiknya. Setiap pengelolaan lingkungan hidup, baik pengelolaan air limbah, emisi udara, maupun limbah B3 semua sudah diatur dalam struktur perundang-undangan di Indonesia. Memastikan peralatan pengolahan air limbah efektif dan efisien adalah langkah strategis untuk menghindari terjadinya potensi pencemaran lingkungan yang disebabkan oleh limbah cair. Tujuan dari penelitian ini adalah untuk mengetahui tingkat kinerja dari Pompa A *Industrial Waste Water Treatment Plant* yang merupakan salah satu sistem pengolahan limbah cair yang ada di PT Indonesia Power Jawa Barat 2 Pelabuhan Ratu OMU menggunakan metode *Overall Equipment Effectiveness* (OEE), melakukan analisis *six big losses*, serta memberikan usulan perbaikan untuk meningkatkan nilai *Overall Equipment Effectiveness* (OEE). Berdasarkan data dan perhitungan yang dilakukan, dapat diketahui bahwa nilai *Overall Equipment Effectiveness* (OEE) kinerja pompa A *Industrial Waste Water Treatment Plant* (IWWTP) pada bulan juli-desember 2019 didapatkan nilai *Availability* sebesar 92,99%, nilai *Performance* sebesar 85,57%, dan nilai *Quality* adalah 100%. Dengan demikian diperoleh nilai OEE selama periode tersebut adalah sebesar 81,28% yang artinya nilai tersebut masih berada di bawah nilai standar OEE *world class* yaitu sebesar 85%.

Kata Kunci: Pompa, Efektivitas, *Overall Equipment Effectiveness* (OEE), *Six Big Losses*, Pengelolaan Lingkungan

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ABSTRACT

Environmental management is an act to preserve and improve environmental quality to the point where all living things can fulfill its basic necessity without any problem. Environmental management consists of three different types, waste-water management, air pollution control, and also hazardous waste management. Each type of environmental management is already regulated in the national law of republic Indonesia. Physical instrument such as waste-water pump, holds a valuable measure in waste-water management. In waste-water management, ensuring the instruments efficiency and effectivity is one of the best strategic way to prevent environmental pollution caused by the waste-water. The aim of this research is to identify the performance of waste-water pump “Pompa A” that is used in the Industrial Waste-Water Treatment Plant of PT. Indonesia Power Jawa Barat 2 Pelabuhan Ratu OMU. The assessment methods that are used in this research consists of Overall Equipment Effectiveness (OEE) value, Six Big Losses Analysis. This research also provides suggestion and solution to improve the OEE value of the waste-water pump. According to the results of analysis, the assessment value of “Pompa A” in I-WWTP PT. Indonesia Power Jawa Barat 2 Pelabuhan Ratu OMU is 92.99% of availability value, 85.57% of performance value, and 100% of quality value. The period of assessment was set on July – December 2019. The OEE value that was obtained in that period is 81.28%. Hence. the OEE value of the pump is still below OEE world class standard which is 85%. Therefore, several improvements are still needed to fulfill the standard above.

Keywords: Pump, Effectivity, Overall Equipment Effectiveness (OEE), Six Big Losses, Environmental Management

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