

## ABSTRAK

Perawatan merupakan suatu upaya yang wajib dilakukan guna mempertahankan sebuah capaian kinerja peralatan yang mendekati sama dengan kondisi diawal atau baru (Kumar:2021). Pada implemetasinya, perusahaan pendistribusian bahan bakar minyak memiliki peralatan utama berupa pompa Centrifugal. Berdasarkan riwayat operasi pompa, terdapat 8 pompa Centrifugal perusahaan mengalami kegagalan dengan persentase yang tinggi, dengan standar maksimal *downtime* ialah 2% dari durasi operasi (Permen ESDM RI-2020) sehingga harus me-non aktifkan pompa untuk beberapa waktu (*downtime*), Tidak hanya itu, ke-8 pompa perusahaan diidentifikasi memiliki nilai vibrasi yang tinggi yaitu  $4.6 - 11.2 \frac{mm}{s}$ . Sesuai dengan standar ISO *Saverity rate* 10816 pompa dengan nilai getaran diatas  $4.5 \frac{mm}{s}$  tergolong kedalam pompa dengan kondisi *unsatisfactory*. Sehingga perlu dilakukan analisa metode kehandalan yang berfokus pada perawatan pompa Centrifugal. Melalui penerapan perhitungan nilai kehandalan pompa Centrifugal Perusahaan periode 2021 maka secara numerik serta *software* komputational maka didapatkan nilai kehandalan total pompa yang terjadi sebesar 0.8367 dengan rekomendasi seharusnya sebesar 0.88046. Penerapan analisa Pareto diagram guna mengidentifikasi nilai dominan serta *route causes analysis* dengan jalan *Focuse group discussion* sebagai analisa akar sebab masalah yang selanjutnya diimplementasikan media tabel 5W sehingga didapatkan “*miss alignment*” sebagai sebab utama yang gunakan sebagai kepala ikan dalam penyusunan tabel 5W+1H sebagai perancangan perawatan pompa Centrifugal perusahaan berupa rancangan alur diagram yang dapat diterapkan oleh *person in charge* terkait.

Kata Kunci : Perawatan , Identifikasi, Kehandalan.

## ABSTRACT

Maintenance is an effort that must be done in order to maintain an equipment performance achievement that is close to the same as the initial or new condition (Kumar: 2021). In its implementation, the fuel oil distribution company has the main equipment in the form of a Centrifugal pump. Based on the pump operation history, there are 8 Centrifugal pumps the company has failed with a high percentage, with a maximum standard of downtime is 2% of the duration of operation (Ministry of Energy and Mineral Resources RI-2020) so that it must deactivate the pump for some time (downtime), not only Therefore, the company's 8 pumps were identified as having high vibration values, namely 4.6 – 11.2 mm/s. In accordance with the ISO standard Saverity rate 10816 pumps with vibration values above 4.5 mm/s are classified as pumps with unsatisfactory conditions. So it is necessary to analyze the Reliability method that focuses on the maintenance of the Centrifugal pump. Through the application of calculating the Reliability value of the Company's Centrifugal pumps for the 2021 period, numerically and computational software, the total pump Reliability value that occurs is 0.8367 with the recommendation that it should be 0.88046. Application of Pareto diagram analysis to identify dominant values and route causes analysis by way of a group discussion Focus as a root cause analysis of the problem which is then implemented by 5W table media so that "miss alignment" is obtained as the main cause that is used as a fish head in the preparation of 5W + 1H tables as a design The company's Centrifugal pump maintenance is in the form of a flow diagram design that can be applied by the relevant person in charge.

Keywords: Maintenance, Identification, Reliability.