

## ABSTRACT

As one of company that produces color liquid for textile product, PT. Dystar Colour Indonesia must pay attention on product quality that they produce, due to give an appropriate guarantee for their customer. Synthesis product quality of PT. Dystar Colour Indonesia that does not fulfill the company target can cause a big damage for the company itself. Nine unit of vessel synthesis is an instrument to produce synthesis product. Necessity of a maintenance management to decide an effective maintenance policy for vessel synthesis due to produce synthesis product is one way to increase and to control the quality of synthesis product.

Quantitative and qualitative analysis is carried out in process of increasing quality of synthesis product by deciding an effective maintenance policy for vessel synthesis. Quantitative analysis is done to decide preventive maintenance time interval. This analysis only done to crisis component vessel synthesis which use pareto diagram to measure it. Qualitative analysis is done with Reliability Centered Maintenance (RCM) method to decide maintenance task that fit for component based on its reliability characteristic. Phases of RCM method are choosing the system and gathering the information, system description, function and functional failure, failure mode and effect analysis, logic tree analysis, and also task selection.

The result from quantitative analysis is preventive maintenance time interval of crisis component, which are 4 days for pHmeter, two months for thermometer, 25 days for motor drive stirrer and agitator, 9 days for level indicator, 12 days for product (wilden) pump, and 15 days for outlet/bottom valve. Maintenance policy for vessel synthesis component is decided on qualitative analysis with RCM method. The preventive maintenance policy are 6 times directed, 6 condition directed, 5 failure finding, and 10 run to failure.

From the result of data-processing, it will gain an effective maintenance policy to be carried out by each component of vessel synthesis. The preventive maintenance policy that have been done can increase component reliability and also can keep the performance of the machine. The increasing quality of synthesis product is expected can happen with controlling performance of vessel synthesis.

Keyword: Maintenance management, reliability, maintenance time interval, Reliability Centered Maintenance (RCM)