

ABSTRACT

PREVENTIVE MAINTENANCE DEVELOPMENT PROGRAM USING RELIABILITY CENTERED MAINTENANCE (RCM) II AND ESTIMATION OF OVERALL EQUIPMENT EFFECTIVENESS (OEE)

(Study Case: Urea Plant PT Pupuk Kujang 1B)

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PT Pupuk Kujang is one of the producers of fertilizers which is having an important role in ensuring stock of urea fertilizer of West Java. In 2006. As time goes by, realization of production fertilizers Kujang 1B, established in 2006, is not able to fulfill the production capacity of 570,000 tons every year. One of the causes is the length of Downtime in the amount of 1192 hours, or 49.7 days from the the normal standard allowable Downtime as long as 7 days every year.

Preventive maintenance existing has not been carried out based on the optimal treatment time intervals taking into account the characteristics of the damage. So, It requires effectively and efficiently maintenance activities using the Reliability Centered Maintenance II (RCM) II to reduce the length of Downtime. Moreover, It will estimate the effectively of Equipment performance using Overall Equipment Effectiveness (OEE).

Based on the results of data processing, synthesis section was selected as the critical section at Urea Plant 1B with 7 critical Equipment. Based on the data processing using RCM method, known maintenance activity as well as the maintenance interval with the cost efficiency of 33%. Based on the method of OEE also known that the critical Equipment has not been able said to be effective, so companies need to optimize maintenance activity as well as develop skills appropriate maintenance crew PT Pupuk Kujang .

Keywords: Preventive maintenance, Reliability Centered Maintenance II, Overall Equipment Effectiveness