ABSTRACT

Maintenance task of all equipment on power plant units needs to be done, to anticipate failure such as unexpected downtime that occurred at the power plant units, which is 4 PLTU PT. PJB UP Gresik. The design of the task, strategy and proper scheduling maintenance is also necessary to minimize cost of maintenance. This research using Reliability Centered Maintenance II method to determine design of maintenance task that can be applied in power plant unit 4 PLTU PT. PJB UP Gresik. Maintenance Task which has been determined at unit 4 PLTU is scheduled discard task, scheduled restoration task and finding failure task. Scheduling maintenance is performed by using the conventional method of preventive maintenance. After determine scheduling maintenance using RCM II method, the next step is comparison of cost efficiency to perform the design of existing maintenance task and the design of customized maintenance task using net present value indicator. Equipment maintenance costs which included in the calculation of NPV is the critical equipment based on cost based criticality. From the calculation of NPV, NPV value for the design of existing maintenance task is Rp 42.088.102.225.56, while NPV value for the design of customized maintenance task is Rp 42.656.258.475.42. From these result, it can be said that the design of customized maintenance task provide greater income to the company as much as Rp 568.156.249.86.

Keywords : Maintenance Task, Reliability Centered Maintenance II, Cost Based Criticality, Net Present Value.
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