ABSTRACT

Besides Heavy Crude Oil, Oil Field also produces Light Crude Oil produced by the condensation of liquid hydrocarbons that are still contained in the vapors from the gas in the well casing. This process takes place in the condensate collection facilities or referred to the Casing Vapour Collection (CVC) Station consisting of CVC Separator, Air Cooled Heat Exchanger or Fin-fan cooler, Condensate Separator, Condensate Transfer and Enclosed Ground Flare Pump or Gas Incinerator as equipment main.

This research will discuss the planning of maintenance activities by applying RCM (Reliability Centered Maintenance) II for the assessment of risks caused malfunction in the condensate system in CVC Station. Proper planning of maintenance activities, there should be an analysis of the kind of the equipment failure. Quantitative analyzes provide data on equipment maintenance intervals Condensate Pump 261 hours on the motor components, pumps, clutch 263 hours and 372 hours. While the Fin fan Cooler equipment maintenance intervals obtained for 257 hours on the motor, belt for 260 hours, the fan blade for 225 hours and cooler for 254 jam. Using software weibull to optimum cost at replacement time for equipment condensate pump on the motor component of 5.07 US $ to 250 hours, the pump component of 4.65 US $ in 300 hours, coupling components for 5.07 US $ at 400 hours. While the equipment ACHE Fin Fan Cooler for motor components obtained for 14.19 US $ at 300 hours, belt components for 4.24 US $ at 250 hours, Fan Blade component of 6.88 US $ at 300 hours and cooler parts of 4.00 US $ to 250 hours.

By RCM II Decision Worksheet were obtained the proper maintainance activity on the CVC Station like as scheduled on condition at cooler, scheduled restoration at unit condensate pump, scheduled discard at coupling and belt.

Key Word: Timeline Maintenance, RCM, Optimum Cost.