ABSTRACT

PT Perkebunan Nusantara VIII *is a* Badan Usaha Milik Negara *(BUMN) engaged in tea plantations. This research was conducted on one of the gardens owned by* PT Perkebunan Nusantara VIII *located in Ciater Subang Regency. This factory has a Make to Order production system, so the Factory will produce Tea if it has an order. Tea that produced by this factory in the form of Black tea. This factory has several Process rooms including Drying Room, Mill Room, Fermentation Room, Sorting Room and Packing Room. Rotorvane engine is one of the machines that are in Mill Room.*

Rotorvane machine is a milling machine to shrink the tea leaves. This machine has the lowest percentage of machine condition among the other machines in the mill room and its have 45% of condition. Based on the condition of the machine, optimum maintenance method is required and know the level of machine effectiveness, to improve machine performance. The method used is Risk Based Maintenance (RBM) and Overaal Equipment Effectiveness (OEE. RBM method is useful to know the risk of losses caused by the machine if a failure or damage to the machine. The OEE method will result in the percentage of machinery effectiveness based on three components: Availability, Performance Rate, and Rate of Quality Product .Further examination of the Six Big Losses factor to determine what factors lead to low OEE value

Based on the RBM Method, Rotorvane Machine has Risk of Rp 801.068.834 (1,*078%) The risk goes beyond the criteria for corporate earnings* Rp.743.424.000 (1% *of income per year*). *The resulting maintenance interval is a Restoration task and a discard task. The maintenance interval for the electromotor subsystem is 569.98 hours, the gearbox pulley subsystem is 474.46 hours and the Rotor subsystem is 591.84 hours. In the OEE Method known Rotorvane machine has a percentage of 77.50%. While Six Big Losses is known Idling and Minor Stoppages is the biggest failure on this machine.*

Keywords – Risk Based Maintenance (RBM), Overall Equipment Effectiveness (OEE), Six Big Losses.