

Abstract

Based on the data collection, the splice machine of the case study has frequent production line stops and long corrective maintenance times. This research is then to study and improve preventive maintenance process in order to reduce production line stops and corrective maintenance times. The collective data show that the causes of the problem are 1) high loss between splice fiber (about 82.5 %) 2) Bad view (about 7.1 %) 3) Fiber optic splice machine does not splicing fiber (about 6.4 %) and the last one is about 3.6 %. The average times of loss was 206.22 times per month and the time to repair was 1430.87 hours per month. Currently preventive maintenance action times once per month. However after data analysis, we found that mean times between failures (MTBF) was 153.78 hours (6.41 days) and average period to mean times to repair was 42 minutes. Therefore, the preventive maintenance is changed from once a month to four times a month (or once a week). Moreover, work instructions of preventive maintenance are established and implemented. The results show that Overall Equipment Efficiency (OEE) increased from 30.10% to 51.87% and maintenance lead time could be reduced from 5.42 hours per month to 1.49 hours per month. Moreover, the loss was decrease from 7.5 times per month to only 4 times per month. The availability of equipment is increased from 98.11% to 99.47%. Equipment Performance Efficiency is decreased from 82.89% to 82.76%. Equipment Quality Ratio is increased from 37.00% to 63.0%.