



ON EVALUATION OF VARIOUS RELIABILITY MEASURES OF STANDBY SYSTEMS WITH ONE ESSENTIAL UNIT AND DISTINCT REPAIR POLICIES

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ABSTRACT

Present paper is a sincere effort of analysing two standby systems having three compressor units and one generator. In both models, initially two compressor units are in functioning state while the third is in standby state. To keep system in operating state at least working of two units out of three units is necessary. Here generator is considered as side by essential standby unit which will be in operation when there is halt in electricity supply. In model I the priority of repair is given to recent failure where as in model II the priority is given to previously failed unit. Semi- Markov process and regenerative point techniques has been used for finding various measures of reliability such as MTSF, Availability and Profit Analysis .For making the models useful practically previous years data of from Verka milk plant has been collected and is used for graphical analysis.

Key Words: *Standby System, Semi- Markov Process and Regenerative Point Techniques*