

Survey of management methods that consider the reliability and economic properties of river pumping systems

Various machine plants that have been set up as an infrastructure since high economic growth period are aging, causing higher risk of system failure and cost of operation and maintenance a social issue. This research proposes an effective maintenance technique for improving the reliability of the river pumping systems within limited budget. Based on data on the current inspection and repair, life cycle cost (LCC) and reliability of facilities is analyzed and the relation between the method of maintenance and the reliability of facilities is clarified. It also proposes items in the database necessary for long term management of pumping systems as well as application of it.

Key words : pumping systems, FMEA, FTA, reliability, maintenance-management, database